THE NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE, HORTICULTURE, AND KINDRED ARTS.

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MAY, 1867.

Warm with new life, the glittering throngs,
On quivering fire and rustling wing,
Delighted join their votive songs,
And hail thee Goddess of the Spring.

DARWIN.

CONTRAST between the customs of our own time and some of those which have existed among people who had their period upon earth long ago, and then passed away, is sometimes exceedingly interesting.

Some of the customs which were always observed by our English ancestry on the first of MAY, and which seem to have been rooted in the very hearts of the people, have come down to us; but transplanted into a more rigid climate, they have become chilled, and have lost much of that freshness and vitality which they exhibited through so many ages in their own sea-girt isle.

There, it was anciently the custom for *all* ranks of people to go out a Maying early on the first of May. *Bourne* tells us that, in his time, "In the villages in the North of England, the juvenile part of both sexes were wont to rise a little after midnight on the morning of that day, and walk to some neighboring wood, accompanied with music and the blowing of horns, where they broke down branches from the trees, and adorned them with nosegays and crowns of flowers. This done, they returned homeward with their booty, about the time of sunrise, and made their doors and windows triumph in the flowery spoil."

This is, every season, attempted here; but under what different aspects and circumstances! The girls with blue lips instead of red, with woolen hoods upon their heads, and hands encased in fur gloves; and the boys with thick boots, mittens and overcoats! The ruts are deep and somewhat frozen; patches of snow lie in the woods, and, although the sun shines, its warmest beams are neutralized by the northwest winds which come sweeping over the hills. Their music is the "blowing" of certain nasal projections, the dim notes of a shivering blue-bird, or the doleful wail of an old field lark, complaining that she had come north altogether too soon!

As to flowers, they are "like angels' visits, few and far between." Miles of hill and dale are searched before the effort is rewarded by anything that "blows," except the wind. The sight of an "*Early Crowfoot*" and a bunch of

Cowslips in the wet meadow, puts the poets in high spirits, but a patch of the *Trailing Arbutus*, exhaling their charming fragrance into the air, crowns their researches and the heads of the girls, and off all scamper for a warm room and a hot breakfast.

It is no use to try to sing *our* Mayday into an English Mayday. The weather and the winds are against us. The poets must give it up, and the girls and boys must give it up. Our better way is, to get up an institution of our own, and be sure and fix the time late enough to dispense with overcoats and fur mittens. Say the first of June, or, if earlier, the 20th of May; that is the time when cows are turned to pasture, and it is supposed there is some *green* thing, *then*. Besides, the twentieth of May has been said to be particularly lucky for lovers to meet in couples to marry; at least, so an ancient ballad says, in a "*Song to Harriet:*"

"Of the three summer months they say,
The most of luck is the twenty o' May,
Our hearts and hands to join;

This bloom which fills the fragrant air,
Shall rest upon thy bosom faire,
And thou shalt rest on mine."

So, if you are all agreed, we will have the "first of May come on the twentieth," or at least postpone going a-Maying until that time. Customs, like virtues, come slowly; so that it is time we stop imitating others, where it is impossible to graft their graces upon our more rigid climate, and strike out something *of our own*, which shall become a custom worthy of remembrance and record.

But MAY is a busy month; we cannot stop long among the romping boys and girls, nor even the poets. The first thing which we ought to do, is to see that every thing is provided in the house and around the house, for the *convenience and comfort of the women*. Their lot is harder than ours. They have less hours of relaxation, are confined more at home, and have less of the outside world to excite and interest them than men. And then, generally, they do not hold the purse, and do not find it so convenient to purchase many little matters of convenience or of labor-saving, as those do who are in the habit of making the purchases. This should be the item of *first consideration* in our spring work. In the subjects considered, the next should be that of

SETTING AN ASPARAGUS BED,—because it will be a comfort to the women to adorn the table with an elegant dish, and at the same time provide the family with a wholesome and nutritious vegetable. Obtain one or two hundred good roots, two or three years old, and set them in a trench a foot wide and deep, and a foot apart in the trench. Spread the roots out, at a distance of one foot apart on each side of the trench, making two rows in one trench, or 100 plants in 50 feet. Before marking out the trenches, the whole plot ought to be spaded two feet deep and an *abundance* of manure mingled with the soil. If well done and tended, the bed will continue from ten to one hundred years.

DRY PASTURES.—Remember the short feed in pastures in July and August. Do not turn stock upon them too early. Sow oats, millet and corn, for feeding out when the pinch comes.

THE CORN CROP.—Get it in early—by the 10th, if you can. Plant well, and you can hoe well. A field well planted will be cheaply tended, compared with one hastily and imperfectly planted. Steep corn in saltpetre or copperas water, if liable to be pulled up.

ORNAMENTAL.—Do not forget to plant the shade trees in front of the house, that you regretted you had not done some years ago! Nor to enclose a spot for a garden, near the house, and begin to fill it with plants for small and large fruits.

GRAFT THE TREES that need it.

CULTIVATE ROOTS for the stock. Turnips, carrots, beets, mangolds, parsnips, &c.

EARLY CORN.—Plant it early, and continue to plant small patches, and you will have an abundance of it until heavy frosts come, and the fattening hogs will fare well, too.

PLOW AND MANURE EARLY.—Plow the fields twice, if convenient. We do not plow the land enough. Twice is better than once—three times better than twice, often.

BE PROMPT, but moderate; be *prudent*, but not doubting; be *temperate*, but live generously; and this will be the most useful and satisfactory *Month of May* you have ever lived.

—The Michigan Senate has passed a bill appropriating $20,000 for a building to be used by the State Agricultural College.

NEW PUBLICATIONS.

THE AMERICAN NATURALIST, a Popular Illustrated Magazine of Natural History. Vol. I.—March, 1867, —No. 1. Salem, Mass., Essex Institute. Monthly. Pages 56. Price $3.00. Alpheus S. Packard, Edward S. Morse, Alpheus Hyatt and Frederick W. Putnam, Editors.

Farmers lose many hard days' work by the depredations of insects. We ought to know more about them than we do. Those of us who are too old to go to college to study their habits, and learn their classical names, must employ the next best means, and read books and papers. Instead of cloistering up their wisdom as of old, the scientific men of our day are disposed to let their light shine for the benefit of all. Indeed they are very glad to exchange their knowledge of the "Lepidoptera," "Diptera," &c., &c., for our "Chenangoes," "Ruta bagas," and the like. Will not the exchange be mutually beneficial?

The first number of this new work has articles on the Land Snails of New England; The Volcano of Kilauea, Hawaiian Islands; The Fossil Reptiles of New Jersey; The American Silk Worm; Winter Notes of an Ornithologist; Reviews; Natural History Miscellany; Correspondence; Natural History Calendar; Proceeding of Scientific Societies; Glossary, &c. Paper, printing and cuts, all in best style.

BEET SUGAR.

In the April number, we published some account of the factory established at Chatsworth, Ill., for the manufacture of beet sugar, in which it was stated that the company had roots enough on hand to produce 400,000 lbs. of sugar. The *Prairie Farmer* says that ninety-one barrels of sugar were sent to Springfield from this factory on the 26th of February. The same paper contains an article upon the subject from a correspondent in the city of New York, who says:

A company is about to be organized here with a very large capital for the purpose of establishing beet sugar works near La Salle. The leaders in the movement have visited beet growing districts in France and Germany and are familiar with best methods and latest improvements.

For my part, I see no reason why sugar cannot be made in this country from beets, as certainly as bread can be made from wheat. When we do it, as I believe we shall, and save the 80 millions in gold which we annually send abroad for sugar, we not only give employment to multitudes of our people, but we solve the question whether we soon pay the national debt. After supplying our own wants, the next step will be to export to foreign countries. Some here are so sanguine as to predict that within 15 years we will send sugar abroad. I have seen too many things slip up in my life to believe everything, but I will venture to say that Illinois corn is about to become a crop of third rate importance, and that a day of brilliant prosperity immediately is before the grand old Prairie State. N. C. M.

WOODEN BOXES FOR THE CANKER WORM.—It appears, by the recently published Transactions of the Massachusetts Horticultural Society, that, next to Hovey & Co., the largest amount of premiums was awarded by this socicty to F. & L. Clapp, of Dorchester, whose fine orchard is surrounded by canker worms. These gentlemen, it is stated by Mr. Hyde, the chairman of the Fruit Committee, have effectually protected their trees by the use of the wooden boxes which have been frequently recommended by correspondents of the FARMER, and of which a brief description will be found on another page. Although the committee say that the "apple crop proved the past season, in the vicinity of Boston, a greater failure than ever," they speak of the large quantities of fine Gravenstein, Williams, Baldwin and other varieties which were exhibited by these gentlemen, during the past year.

For the New England Farmer.

REMEDY FOR THE CANKER WORM.

While on my way to Boston last summer, I saw several orchards that had the appearance of having been visited by that pest the canker worm, and I determined then to communicate through your valuable paper, in season to give those that wish an opportunity to thwart their depredations the coming year, the following cheap and efficient protection:—

Put one or more bushels of clean common mill sawdust, (according to the size of the tree and shape of the earth) about the trunk in a symmetrical mound, piling it carefully and lightly as high as it will stand, and no creeping insect can mount it. It should be looked to every evening during the spring, or time of their running up the trees, and carefully trimmed up or repiled. I tried this remedy several years ago in an orchard that the canker worms had most shamefully abused the year before, and it proved efficient, no worms that year, nor has there been any since. But I don't attribute their long absence to one application of sawdust. I expect they will visit this locality some time, but when they do they will be likely to find a plenty of the dust.

Perhaps I ought to say that I know this will

stop the female bug, for I have seen a dozen of them around one pile in the morning, struggling desperately to get up, but to little purpose, as I never saw one half way to the top of a well made pile. THOMAS ELLIS.

Rochester, Mass., Feb. 25, 1867.

REMARKS.—The canker worm is extending its ravages not only in New England, but in the Middle and Western States. We gladly publish every fact that seems to cast a ray of hope upon the subject, although we must confess that we are less sanguine than our correspondent of the efficacy of his recommendation.

Gunpowder Waste.—We are informed by another correspondent that when O. M. Whipple, Esq., the well known gunpowder manufacturer of Lowell, commenced business in that place, his purchase of real estate included about two acres from an apple orchard of some ten acres. With the idea of benefiting the soil, he applied some of the "waste" from his mill about the trees on his land. In the course of a few years canker worms commenced their work of destruction upon the trees of the original orchard, but left unmolested those on his two acres, although separated only by an ordinary fence. After they had worked some six or seven years, Mr. Whipple purchased the remainder of the lot, and by applying this waste he banished the insect entirely from the whole orchard, and has not been troubled by them since.

Our correspondent understood Mr. Whipple to express the opinion that the efficacy of the waste in this case, might be owing, in part at least, to the salt which it contained. We were not aware that salt was used in making powder. Saltpetre, sulphur and charcoal are generally understood to be the main ingredients of this wonderful product, but we do not know what other substances may be ememployed in the process of manufacture, and thus find their way into the waste of the mill, which we understand, when judiciously applied, has proved to be a most lasting fertilizer.

On behalf of many despairing fruit raisers, we would solicit a fuller statement from Mr. Whipple.

Wooden Boxes.—At the request of several of our readers who have lost their copy of our paper containing the statement of Mr. G. B. Moulton, of Kensington, N. H., who successfully protected his trees from the canker worm by means of wooden boxes, we re-produce the following directions:—

"In the spring of 1865 I placed wooden boxes, ten inches high, around all these trees, allowing a space of two inches between the tree and the inside of the box. It would have been better to have left a space of three inches. I filled the inside with tan, and made it solid by pressing it down with a strip of board. The gutter around the boxes was placed about three inches from the top; the corners being made tight with roofing cement; and a clapboard was nailed on the top edge of the boxes, so as to form a roof over the gutter. I filled the troughs with 'bug oil,' which can be obtained in Boston at from twenty to twenty-five cents per gallon. This I prefer to coal oil, because it will not skim over; while the coal oil will skim over in forty-eight hours and afford a bridge for the grubs. There are two kinds of this bug oil—the thin and the thick. I prefer the thick for wooden troughs, as the thin is liable to leak out. When they run the thickest, the surface of the oil needs to be cleared off as often as once in two days. I use a piece of lathe for this purpose, and a tin quart measure with a long lip to turn in the oil.

"The cost of these boxes is not great. I paid seventeen cents a piece for making the boxes, and found the stuff. Any kind of cheap boards will answer. For the gutter two-inch stuff of good quality should be used. I purchased second-hand tubing used for chain pumps which cost two cents per foot. Dividing this, my troughs cost one cent per foot. Some that I had made, cost two cents per foot for making. The clapboard should be of good quality, so that it will not crack by the weather. My trees are very large, and some of my boxes were about ten feet around them. I estimate the boards at seven cents per box—troughs ten cents, and clapboards at three cents—making the whole cost of boxes at thirty-seven cents per tree; and the whole cost of oil, tan, and labor, not to exceed one dollar. For any ordinary orchard, this would not exceed fifty cents per tree. It takes, for troughs of this size, about one quart of oil at a time."

It will be remembered that Mr. Moulton considered his experiment a perfect success, and that his care and labor was rewarded by a fair amount of fruit last year. The objection that the young worms, hatched from eggs laid below most protectors, are able to surmount the obstacles which impeded the ascent of the full grown female, is obviated by the use of the trough of oil.

—The *Gardener's Monthly* says that most of the failures in planting raspberries and blackberries, arise from planting too deep.

USES OF SAWDUST.

The inquiry has often been made, whether sawdust is in any way valuable to be used on the farm? The reply has usually been, that, as it is made up of portions of various plants and is therefore vegetable matter, it must be useful. But how it ought to be treated, and under what conditions it acts the most favorably, are points not yet fully settled.

In its use for one purpose, we can scarcely err. It forms a soft and *excellent bedding for stock*. It is easy for cattle to rest upon, absorbs a large portion of the liquids, and serves to keep the cattle clean, and, therefore, in a healthy and thrifty condition; and this is of no small consideration. All animals thrive according to the degree of health and comfort which they enjoy, as well as according to the amount and quality of the food given them. An ox well fed, but exposed to severe cold and storms, would be likely to gain only half as much as he would if properly sheltered. So if he were so situated as to be obliged to stand all the time, he would soon become so uncomfortable as not to gain more than half as fast as he would if he could lie down, when inclined to do so, upon a bed of dry sawdust or litter.

Mr. Asa G. Sheldon, of Wilmington, who probably has done as much *teaming on the road with oxen* as any man in New England, once told us that oxen would do better to travel *twenty* miles a day and rest upon a good bed of straw or other litter, through the night, than they would to go only *sixteen* miles, and lay upon bare planks at night! This is certainly awarding great efficacy to the bed, but it comes from good authority, and is probably correct.

Sawdust is not easily decomposed, but it is an excellent absorbent for liquid manure, and when well soaked with urine, ferments readily. It is also excellent, as a divider, to mix with night soil, wool waste, or other highly-concentrated fertilizers, and when well incorporated with them, forms a manure heap that may be easily and pleasantly handled. It is stated by chemists that "sawdust, during decomposition, forms certain acids, which act as excellent fixers of ammonia, and that when well mixed with dilute sulphuric acid, it is one of the best materials which can be employed for fixing the ammonia given off in stables."

In speaking of sawdust used as a fertilizer, one of our valuable correspondents, "*Oak Hill*," wrote us in 1859, that he thought its virtue equalled, if it did not surpass, any enricher of the soil he ever saw. He wet it and mixed it freely and thoroughly with the soil, but did not state from what wood it came.

Another of our correspondents, Mr. F. J. Kinney, who had used large quantities of sawdust, and made numerous and careful experiments with it, wrote us, some seven or eight years ago, quite a long and minute account of his practice, which we condense, and give as follows:—

"I used 100 cords in nine months in this way. I put the sawdust on the floors about six inches thick, and as fast as it was saturated with urine, shoved the cattle and hogs' bedding into the manure vault, together with the manure, tramping it as hard as possible, and the horse bedding and manure under a shed. I soon found it must be turned or something else done with it to keep from fire-fanging.

"After trying various plans, I found the best was to turn water on it—enough to keep it moist and cool—and let it remain in as solid a body as possible until I drew it out, and then put it in flat heaps, two or three cords in a heap, and a foot thick after it was well trodden down.

"I put a pair of steers into a small yard during the night for two months in the fall, throwing sawdust under them three times a week, one-third of a cord at a time. This lay until the spring, when *four* cords of number one manure were taken out.

"Solid manure must all become liquid before vegetables can be benefited by it in any way, and sawdust has a marvellous faculty of holding on to liquids and gases.

"I never smelt a disagreeable odor around our stables while using the sawdust, except when it burned, and never saw any liquid leaching out from under the heaps on a clayed bottom, though we used water plentifully, often running on two barrels to a cord, at a time.

"Used it with manure, side by side, on various crops and soils. Plowed it in; used it as a top dressing on plowed land and grass land, and for that year there was no perceivable difference except on dry land, where the sawdust manure was best. I ought to say sawdust and manure, for the sawdust had not changed much, and was not worth one-half as much as it was after it had laid over the summer and become decomposed.

"I put *four* cords on half an acre that was too stony to plow, and at the same time ten bushels of oyster-shell lime under it. The hay crop was doubled the first year and quadrupled the second. The sawdust manure operates equally as well on any other crop.

"Wherever I have examined the roots of a vegetable grown where sawdust, chip or leaves and stable manure had been used, I found

them embracing with their delicate fibres every atom of the vegetable matter within their reach, and undoubtedly drawing their natural sustenance from them. There is nothing that I have tried as an assistant fertilizer that holds so much liquid or retains it so long, where only the sun and air operate on it, as hard-wood sawdust.

"There is much difference in sawdust. It would be:—

1st quality, hard wood, hickory, maple, &c.
2d quality, poplar, basswood, chestnut, &c.
3d quality, spruce, hemlock, pine, &c."

Mr. J. CROSS says,—"I have used sawdust for bedding for ten years, and would not be without it, if I could obtain it by going four miles after it. My cows go from the barn as clean as they came from the pasture in the fall. "A. L. W." of Hope, Me., says it is the very best thing to use for bedding under horses and cattle.

We have thought it well to refer to this matter, as there are mills in nearly every town where quantities of sawdust are allowed to run to waste. In some places, where a large amount of lumber is cut out and manufactured, almost any quantity may be obtained.

WOOL-GROWERS' ASSOCIATION.

The New York State Sheep-Breeders' and Wool-Growers' Association,—Hon. Henry S. Randall, President, and E. B. Pottle, of Naples, N. Y., Corresponding Secretary,—will hold an annual Fair at Auburn, May 8, 9 and 10, 1867.

This Association of the Wool-Growers of the Empire State is doing a good work. Two annual Fairs have been held, at which facts of the highest importance to every sheep farmer were developed. At the ensuing Fair in May, prizes of $30, $20, and $10, respectively, are offered on the following six classes of sheep; with a sweepstake of the society's diploma on each class except the 4th. On the 4th class $15, $10 and $5 for the first, second and third best five lambs, without respect to sex.

First Class—AMERICAN MERINOS.
Second Class—FINE MERINOS—yielding a wool adapted to the manufacture of fine broadcloths and other fabrics requiring a staple of equal quality.
Third Class—DELAINE MERINOS—yielding a wool adapted to the manufacture of delaines and similar fabrics—length of staple being a leading consideration, but in which neither extreme fineness of fibre, as required in the second class, nor great weight of fleece, as required in the first, are to be regarded as absolute essentials.
Fourth Class—LAMBS—of preceding classes.
Fifth Class—LONG WOOLED SHEEP—including the Leicesters, Cotswolds, Lincolns and other breeds and varieties usually comprised under that designation.
Sixth Class—MIDDLE WOOLED SHEEP—including Southdowns and other sheep usually so classed.

Special prizes are also offered as follows:—

D. D. T. Moore, $25 for the Merino Ram's fleece, of one year's growth or thereabouts, sheared at the Fair, which, on being cleansed, shall be found to give the greatest weight of wool, in proportion to its time of growth and to the live weight of the animal. A. F. Wilcox, $25 for Merino Ewe's fleece, same conditions.

William R. Pitts offers a prize of $25 for the Merino Ram's fleece, of one year's growth or thereabouts, sheared at the Fair, which, on being cleansed, shall be found to give the greatest weight and value of wool, in proportion to its time of growth, without reference to weight of the animal. David Cossit $25 for Merino Ewe's fleece, same conditions.

Henry S. Randall, $25 for English Long Wooled fleece, conditions same as for the Pitts and Cossit prizes.

Prizes of $10, $8 and $6 will be awarded to the three best shearers.

NEW ENGLAND AG'L SOCIETY.

The annual meeting of this association was held in Boston, March 7. The following officers were elected:—

President—Hon. Geo. B. Loring, of Salem, Mass.
Secretary—Daniel Needham, of Groton.
Treasurer—Isaac K. Gage, Fisherville, N. H.

VICE PRESIDENTS.

S. L. Goodale, of Saco, Me.; Hon. Frederick Smyth of Manchester, N. H.; Daniel Kimball, of Rutland, Vt.; William Birnie, of Springfield, Mass.; Amasa Sprague, of Cranston, R. I.; E. H. Hyde, of Stafford, Conn.

TRUSTEES.

Maine—Seth Scammon, of Scarborough; Columbus Stewart of North Anson; Waldo T. Pierce of Bangor; Geo. W. Ricker of Bath; and J. F. Anderson of South Windham.
New Hampshire—Moses Humphrey of Concord; S. W. Buffum of Winchester; W. F. Estes of Dover; Geo. W. Riddle of Bedford; Virgil C. Gilman of Nashua.
Vermont—Geo. Campbell of Westminster; D. R. Potter of St Albans; Henry Clark of Poultney; Ebenezer Bridge of Pomfret; and Thomas Saunders of Brookfield.
Massachusetts—S. H. Howe of Bolton; G. T. Plunkett of Hinsdale; Levi Stockbridge of Amherst; Charles P. Preston of Danvers; and S. B. Phinney of Barnstable.
Rhode Island—Edward P. Pearce of Cranston; David Pike of River Point; A. B. Chadsey of Wickford; J. D. W. Perry of Bristol; and Thos. B. Buffum of Newport.
Connecticut—J. J. Webb of New Haven; Benj. Sumner of Woodstock; H. S. Collins of Collinsville; Burdett Loomis of Windsor Locks; and G C. Hitchcock of New Britain.

Governor Dyer, of Rhode Island, moved that the subject of the next exhibition be referred to one trustee from each State, with instructions to report to the full board. The motion was carried, and the chair appointed as the committee Messrs. Anderson of Maine, Estes of New Hampshire, Bridge of Vermont, Howe of Massachusetts, Pearce of Rhode Island, and Webb of Connecticut.

At a subsequent meeting of the trustees, the ex-

ecutive committee, consisting of the president and secretary of the society, and Messrs. Anderson of Me., Smith of N. H., Birnie of Mass., Pearce of R. I., Clark of Vt., and Sumner of Ct., were ordered to negotiate with the Rhode Island society, or any other similar association, for holding an exhibition next autumn.

RAISING LAMBS.

Wishing to compare his own practice with that of other breeders of merino sheep, Dr. Randall addressed a series of questions to quite a number of the leading farmers in New York and Vermont. We select from the *Rural New Yorker* the following summary of answers to these questions upon the following timely topics:—

Attention to Lambing Ewes.—It is scarcely necessary to specify separately the practices of each of our correspondents in this particular. Those having the most valuable sheep visit lambing ewes constantly during the day, late in the evening and early in the morning. Some visit them once in two hours during the night, and if a ewe is found about to yean, watch her until she has done so and the lamb is taken care of. The amount of attention required depends much on the state of the weather. Unless sheep are very tame and accustomed to see the shepherd and his light, it is much better for him to keep away from them in the night. Otherwise the lambs will be run over or separated from their dams in the resulting confusion, and young ewes will sometimes take no pains to look them up again; and young ewes frightened away or disturbed, soon after yeaning, are much more likely to disown their lambs.

Condition of the Udder.—All our correspondents but two express themselves in favor of examining the ewe's udder, at the time of lambing, to see what is its condition, and that the milk flows freely. The teat is often stopped at the lower end and requires considerable pressure by the fingers, wetted with milk or spittle, to force out what some of our farmers term the "plug." Mr. Pitts does not examine the udder if the lamb is strong enough to suck. Wilcox omits the examination for a few hours to avoid unnecessarily disturbing or exciting the ewe. These differences are probably rather apparent than real. If the lamb helps itself at the outset, sucking and obviously obtaining milk from both sides of the udder, and obtaining enough of it, no one would feel called on to interfere; if not, and especially if the weather is cold and the lamb betrays weakness, the examination would not be long deferred by any one. Our own views on the subject are fully given at p. 146 of the Practical Shepherd, and it is not worth while to take up room to repeat them here. We consider the objection to disturbing ewes *unnecessarily*, especially *young* ones, worthy of attention; for we have repeatedly seen a ewe with her first lamb, run away from and betray great indifference to it for some time afterwards, if disturbed while licking it dry. We would meddle with *no* ewe while licking her lamb dry, and while the latter was vigorously making its first efforts to suck, if in anything like a comfortable temperature.

First Milk.—One question to our correspondents was:—"If the milk is thick and gummy do you milk it out on the ground, or let the lamb take it?" Baker, A. H. Clapp, Gregory, Heyne, Pitts and Pottle have the lamb take it. Brown and Wright milk a little on the ground and then have the lamb take it. E. O. Clapp milks it on the ground if in abundance, if not, lets the lamb take it if it can. Elithorp milks it on the ground if very thick and gummy, so as to be difficult to draw, but if it comes easy lets the lambs take it. Hammond milks it on the ground and suckles the lamb on another ewe "until the milk becomes good." The Marshalls let the lamb draw it if he can. Rich milks it out once. Sanford, if it is quite thick, milks it out, but likes to have the lamb take it as soon as he can. Saxton first lets the lamb draw a little, and then milks out the bag clean on the ground. Wilcox lets the lamb take it if he will, but if not, after a few hours milks it out. Our practice has conformed to that of the Marshalls, which is substantially the same with that of Elithorp, Sanford and all those who say they let the lamb take it; for we suppose none of them mean to be understood that they draw it by hand from the udder and feed it from a spoon, or the like, to the lamb, if, as sometimes occurs, the milk has that thick, gluey consistency which renders it impossible to be drawn by the lamb. We do not think it well, however, for a weak lamb at least, to have a continued surfeit of this thick, first milk, if it physics it too freely. It is, as Mr. Pottle remarks, "Nature's cathartic." Few ewes continue to give it too long, but we have seen instances of the kind.

THE CONSUMPTION OF WOOL.—We learn from Washington that a statement made to the Senate Committee on Agriculture declares that the annual consumption of unscoured wool in the United States is little more than one-third of the estimate in the special report. It makes the total wool supply for the four years ending June, 1865, amount to 800,000,000 pounds, 300,000,000 of which were produced here, 279,000,000 imported, and 220,000,000 introduced as manufactured woolens.

☞ A company has been formed in Meriden, Conn., for the manufacture of hats by a machine which weaves them whole. Their capital stock is $400,000, and it took $75,000 to buy up the different patents used in the machine.

SCOTCH PINE---Pinus Sylvestris.

Most men, and all women, love trees,—and they love those trees, or shrubs, or plants best, that they have cultivated, or assisted in cultivating with their own hands. The person of taste who erects his house in a charming natural grove, though it may be made up of a variety of the most showy and graceful of our forest trees, is not content to stop there. He wants something before him that he has been instrumental in calling into being himself —something to which he has given thought, and labor, and affection, and which will still require his care, and will bud, and bloom, and exhale its fragrance or bear its fruit, especially for him.

It is this taste that has introduced into our garden and grounds so many beautiful trees and shrubs from our native forests, and so many of the exotics that grace and bless other lands. It was this taste that introduced the *Scotch Pine* into our collections of ornamental trees, a portrait of which embellishes the page before you.

This pine is one of the favorite European species, and as it succeeds remarkably well in this country, will be likely to become a favorite tree. It has many varieties, and they are very dissimilar. In favorable situations, the Scotch Pine will grow eighty or one hundred feet high. The leaves are glaucous, and in pairs; in young trees they are from two to three inches long, and do not drop from the tree until the fifth year. The cones open of themselves shortly after being gathered from the tree, and spread out in the sun. The seed should be sown on a finely prepared sandy soil, in March or April, and on land not entirely open to the sun.

We are permitted to copy our engraving from WARDER'S excellent work on "Hedges and Evergreens."

AYRSHIRE HERD BOOK.

The committee on Ayrshire Cattle appointed by the Association of Breeders of Thoroughbred Neat Stock, have made arrangements for publishing the second volume of the Ayrshire Herd Book. J. N. Bagg, of West Springfield, Mass., has undertaken its editorship, to whom all pedigrees, with a fee of fifty cents each, should be addressed till July next. Posterity rather than ancestry gets the benefit of a clean record. Every valuable calf should be registered at once, lest its origin be forgotten by the time its superior excellence shall give importance to the inquiry.

BEST KIND OF FOOD FOR PORK.—Mr. Willard says that while in England, the past season, he found it to be the universal opinion among those great meat producers where quality and excellence in meat production is carried almost to perfection, that no bacon was considered equal to that from dairy districts, where the feed was barley meal mingled with whey. By feeding barley meal with whey, the dairy farmers of England make their whey pay them in pork from $7 to $10 per cow—an important item, it will be seen, in any diary.

—The Canada *Farmer* mentions an exportation of apples from Oxford County, Can., to the English market at an encouraging profit.

For the New England Farmer.

THOUGHTS ON FEEDING CATTLE.

MR. EDITOR:—I am embargoed at home by the great January thaw, which came a day too late, having began February 1st, and having nothing important to do except taking care of my stock, I thought I could not more pleasantly employ myself than by having a little epistolary intercourse with your many readers.

The thermometer shows us that since the 12th day of December we have had an uncommonly cold spell of weather; the mercury, often falling as low as 10° to 16° below zero, and hardly ever ranging higher than 20° above. We have had, in the fifty days ending February 1st, but one day that it thawed. Dec. 26th gave us a warm rain, that carried off the first snow, of about six inches, and from that time until the commencement of the *snowy week*, January 17th, farmers could not ask for a better time to cut and haul their year's supply of wood. Those who improved that time were wise, and cold as was the weather by the thermometer, the laboring man did not suffer, as he would, had it been more changeable.

The trouble with our climate is, the sudden changes in temperature. This is not only decidedly uncomfortable, when the mercury falls or rises 20° to 40° in twelve hours, but is productive of nearly all our lung diseases and complaints of a similar nature.

Until the 10th of December, the ground was not only bare, but open. I ploughed grass ground till the afternoon of that day, which was a thing I never remember to have done before, in the thirty-five years that I have carried on a farm. I have known occasionally two or three days in January that I could use a plough, but never a season that the ground was not closed earlier than this last.

But I am gossiping on matters of no great practical importance, whereas, when I set down, I had one in my mind that, at the present time, affects the pockets of every farmer owning and feeding stock, and in relation to it I write, as much or more to induce inquiry and thought on the matter, as from any information I can give from my own experience, for I take shame to myself in saying that I have not made accurate experiments to decide the question for myself. The question is this:

How much hay, or its equivalent in grain, is necessary to keep cattle in good thrift?

For answer, one farmer will tell me that he feeds his cattle three times a day; another, five; another, seven; and yet another, as often as he goes to the barn, which is at uncertain intervals, perhaps to-day three times, and to-morrow six.

Now, there must be a "golden mean" somewheres, and while we want milch cows to give a liberal mess and keep in good condition, and oxen to freely do their part of the winter's work, and the young stock to be continually gaining, we cannot afford to feed more than is necessary, while hay is selling at $35 per ton at the barn, thirty miles from Boston.

I believe that most farmers feed too much and too often. I have noticed that the lean man is the great eater. Set ten starved-looking men at one table, and ten sleek, fat ones at another table, and the first will eat one-third more than the last; not only once, but every day for a year. Why is this? I can't say for *certain*, but my *theory* is this: the lean, spare man eats, from habit, more than he needs, more than his digestive powers can properly dispose of, and this so injuriously affects the whole system as to keep him poor in flesh; while the digestive powers of the fat man, who eats sparingly, are kept healthy, and the nutriment is properly absorbed by the system. Reasoning by analogy, if this is true in man, would it not be so in beasts? I believe it would. That, when cattle are fed too often and too much, some of the food is wasted, and the digestive powers so overworked as to take from the thrift of the stock. Allow me to cite an instance or two in point.

A neighbor of mine, last winter, asked me what made his horse so poor, while, said he, I am sure I give him enough to eat.

How do you feed him? said I.

Well, I always fill his rack, when I feed my cattle.

How often do you feed your cattle?

About five or six times day; sometimes seven or eight, when I happen at the barn.

Do you feed all dry hay?

Yes, said he, I believe enough good hay ought to satisfy any horse.

Well, I answered, perhaps it had, but if you will feed your horse with cut feed, twice a day, mixing two or three quarts of meal with it, when you wet it, and not give him more than one-third of the hay in all, that you now do, you will be the gainer, by saving two-thirds of your hay, for the four or six quarts of meal, and your horse will be a greater gainer by the change than yourself.

But, said he, I don't have much for my horse to do at this time of year, and I haven't much corn to spare.

Corn, said I, at present prices, is cheaper feed than hay. Sell a ton of hay, and bring home the amount in meal. Use it, and you will thank me in the spring for my advice. I see, also, that you feed your cattle on meadow hay. This will keep life in them, but you want them to gain. Sell a ton or two of that, cut your hay and sprinkle on a little meal, and your cattle will thank you. At present prices of stock, you cannot afford to let your cattle stand still. Make them gain, for your own sake, as well as theirs.

My advice was followed in regard to the horse, evidently to his advantage; but it was too much work to do it for his cattle.

Another man, in an adjoining town, who has as *good*, if not a better team, than the next

one, feeds so little hay as to be hardly credible. Having three horses and four oxen, he told me the other day how little he had fed to them in three weeks. I think it was not more than fifty pounds each, per week, when they were constantly at work, hauling ship timber, though both horses and cattle were large. At the same time he fed liberally with meal, and kept his cattle gaining.

I was very much interested, Mr. Editor, in the account you gave, some two months ago, of your mode of cutting and mixing your different kinds of feed, but you omitted to state how often you fed, or how much your cows consumed per week. I believe if experiments could be made and published, of how much hay it required to keep the different kinds of stock, when fed uncut and dry, and how much when cut and fed with meal sprinkled on, it would be found that the last mode was far more economical than the first. In the mean time, till farmers have line upon line, many of them will cling to the old mode, saying that the olden times and the old ways were better than the present. Yours, for improvement,

L. H. HILDRETH.

So. Groton, Mass., Feb. 6, 1867.

For the New England Farmer.

CULTURE OF THE ISABELLA GRAPE.

Can anything new be said about grapes? Surely one would think not, if he read all or even half that is said of them, by those who are interested in selling vines. For when we see the wonderful variety advertised and highly extolled by one and condemned by another, the wonder is that any one knows how or what to buy. But in order, I suppose, to make a sure thing of it, very many purchase all the different varieties that are advertised. Then they think themselves in a fair way of supplying the nearest market with the luscious fruit, and in time intend to drown their customers with wine at a cost, as advertised by California and Ohio producers, of four to six dollars per gallon! When I am informed, imported wines can be bought for one-third, or half of that, surely the day is far distant when those who drink rum or whiskey will be induced to quit it for the more genteel wine, if such fabulous prices are to rule.

Why should there be a law forbidding over 6 or 8 per cent. on money-borrowing, while wine makers, and in fact many other kind of makers, demand from 50 to 500 per cent. profit, including butchers, bakers, grocers, &c. Think of the groans which escape the mouth of the sick, who are poor in purse, when the doctor says, "if you only have a little wine, whiskey or brandy, I think you may get about again," and their minds embrace the impossibility, all owing to their purse being so much weaker than the strength of the article demanded, a very little of which may save life and restore to health, if it were not owing to the exorbitant price asked for it, and made so by the accursed *Yankee* desire to die rich, even if it stopped the breath of hundreds of our fellow-beings to obtain it.

Every one cannot raise grapes, if they try; yet a great many more *can raise grapes* than what do. I wish it to be understood I am not referring to vineyard modes. I simply refer to raising two or three good varieties by those who have but a few rods of ground, on which a few hundred pounds of grapes may be raised as well as not for themselves and friends.

Now I propose simply to give you my experience of 16 years with the Isabella, said to be the most difficult grape to ripen, excepting one, in this latitude. My statement can be substantiated by any of my townsmen who have been on my premises in September. I think if my practice were followed by others, we should not hear so much of Jack Frost's destroying grapes, neither of the mildew, rot or blight, and "hopes long deferred," or destroyed, just as we thought in two weeks more we should have the pleasure, for once, of eating as many grapes as we desired, without costing 25 to 50 cents a pound!

My buildings face to the east, on which are trained two Isabella vines. From one I have taken, by weight, 500 pounds; from the other 300 pounds of merchantable grapes. On the south side of the barn I have two Isabella vines, which average 100 pounds each, and usually ripen about the middle of September. In my garden, trellised to the fence, and upwards 8 or 10 feet, I have 4 vines, all Isabella, which yield in proportion to the others; the whole of which take up little or no ground that could be put to any other agricultural use.

These vines are never pruned simply to please the eye of the passer by. In November, or first of December, I take them down, and prune thoroughly even to half of the wood if it is required; then they are coiled up and laid on the ground until spring is well opened, then with strips of leather and tacks they are firmly nailed to the house and roof, clean to the ridge-pole. Every branch is separated from 2 to 4 feet, if possible, and that, of course, is easily done if it is properly pruned out. I never prune a leaf or check a shoot in summer or fall, as my experience is, the bunches are the largest, and ripen the quickest where the foliage is the most dense, provided the branches or runners are separated from 2 to 4 feet. I am satisfied that these vines would often fail to ripen their fruit by the frost striking them, if they had been out in my fields. But when placed against a house or barn, the frost does not have a chance to injure them so early by 3 or 4 weeks. A wheelbarrow load of old barn manure once in two years, with a half bushel of ashes, about as often, spread around them, and a weekly washing of suds in hot weather, will, I am confident, force the vines to new wood, and large and luscious grapes, well and early ripened, will be the reward for our in-

dustry. I have not said as much as I should have liked to on this subject, but I fear I have spun it out too long already for your columns and your readers.

If it would be acceptable to you, I should like one of these days to say a few words about grape wine. SYLVESTER S. CHAMBERLIN.

Chester, N. H., Feb. 12, 1867.

REMARKS.—On the *third day of November last* we gathered and ate grapes from the vines of which our correspondent speaks. Much of the foliage on one or two of the vines was then upon them, and in quite a green condition. The grapes were thoroughly ripened, large and of delicious flavor. Frost had not touched the fruit, and only very slightly the foliage, if at all. Their location is on a high swell of land, where frost, we believe, never injures late planted crops of corn. We have had statements much like these of Mr. Chamberlin, from another correspondent, in regard to the culture of the Isabella grape, and hope this will influence a great many persons, having a suitable locality, to engage in the culture of this variety of the grape. One principal reason for this hope is, because the Isabella is one of the best grapes to keep—perhaps the very best—for winter use. A friend from Western New York informs us that he raises them abundantly, and that when ripe they are gathered, and packed in clean flour barrels, in layers of cotton, and that they are used by the family—children and all—with as much freedom as apples are used. These are kept in closets where the temperature is cool and as even as possible, and usually last until about midwinter.

For the New England Farmer.

"A PLEA FOR THE BIDDIES" ANSWERED.

In the weekly FARMER of Feb. 16, "Idex" desires to know, if a certain profit is obtained from ten fowls, why ten times that profit cannot be realized from one hundred, and twenty times from two hundred and so on indefinitely.

This is not a new question, and it often puzzles the novice and those who farm extensively upon the blackboard or paper; but the experienced readily see many reasons why, practically, in the poultry yard, the rule of three is of little account. Upon every farm and about every house with a small piece of land, a certain number of fowls may be kept at a trifling expense; for in warm weather they pick up most of their living from what would otherwise be wasted or lost. In roving about the fields, pastures, and gardens, and in scratching every nook and corner of the yards, stables, and buildings, they lead the life their instincts teach them, and they can be kept in the most healthy, productive and profitable condition. True, Biddy, in following out her ideas of right and prosperity, is at times provokingly mischievous; yet she more than compensates in the good she does in making havoc on insect life, and gathering up scattered food that would be lost, if not breed vermin.

In this free and inexpensive way, the largest portions of poultry and eggs are produced, and of course in markets supplied chiefly by those who raise at the lowest cost possible, must he compete, who keeps fowls upon so large a scale that all their food must be bought or provided for them. Were there no other difficulties, who could produce a dozen eggs or a pair of chickens at the least cost?

But suppose any farmer who now keeps twenty or thirty fowls, should increase the number by ten or five fold, will the profits follow in like ratio? The present small number is kept without much trouble or expense upon the gleanings and wastes of the farm, and is about all that can be thus supported; therefore any considerable addition of numbers must draw constantly upon the granary and must increase the cost of keeping per head and, of course, cause a like decrease of profit.

While a small number of fowls about a farm if not a pleasure, are not much trouble, a large flock roaming at will could not be tolerated; and with close confinement come other difficulties. Biddy's life now partakes of the artificial; she chafes under restraint, and manifests her ill feelings by being fretty and quarrelsome. Through her extreme modesty and secretiveness she dislikes to lay in the presence of others, or in another's nest, and when compelled to do so, she is inclined to be a little obstinate or indifferent about laying at all. From the busy, bustling body, that had an egg for nearly every day when running about the yards and buildings, under only partial restraint and indulged in her set notions, she becomes, after long and close confinement, lazy, walks idly about, willing to be fed by her mistress or master, but without a thought of repaying their kindness. It is true, some of biddy's whims can be overcome by care and ingenuity in the construction of her apartment; but it is doubtful if the bad influence of having large numbers together can be obviated.

The chief objection, however, to confining fowls is the great difficulty of maintaining their health. Did the same mortality prevail among sheep, horses, cows or hogs that always exist in large collections of poultry, keeping domestic animals would be discouraging indeed. Fowls are not fastidious in their taste, nor of cleanly habits; but they are subject to that universal law of nature, offensiveness and deleterious effects of their own excrements. After awhile the soil of the yards and

the coops themselves, send forth an effluvia which exerts its baneful, blighting influence and in some form causes diseases and deaths. These distempers and epidemics have always been the great drawback to every attempt to keep fowls upon an extensive scale.

I would not say, that by constant sweeping, cleansing and white-washing of small coops; by removing the old dirt and adding fresh to yards or changing their location, together with due attention to ventilation and proper food, tolerable health might not be maintained; but all this, with a large number of fowls, would require an amount of labor and care hardly warranted by the profits. One might almost as well attempt to make the atmosphere of a densely populated city as salubrious and invigorating as that of the country.

These, then, are some of the reasons why farmers who have increased their stock of poultry have not found the profits to increase in the same ratio. Where, then, are the anticipated profits of those who would make a large business of keeping fowls?

The same general conclusion may perhaps be deduced from all attempts to keep any other domestic animal upon an extensive scale. Nor can we fail to see in all this the wisdom of the Creator; for if the profit of breeding increased invariably with the increase of numbers, the business would be monopolized by wealthy individuals or rich and powerful corporations, and the pleasure, comfort and income the farmer now derives from his small flocks and herds would be swept away, and he would find himself totally unable to withstand such formidable competition. N. S. T.

OLD SOWS FOR BREEDING.

Some very successful hog-raisers use only young sows to breed from, thinking this course better than to keep them through the winter. A correspondent of the Boston *Advertiser* gives the following reasons for thinking the contrary course the better way:—

"In rearing swine and making pork there is a universal mistake among American farmers in breeding from young sows, before their physical system is developed. Until this time arrives, most of the food goes to the support of the animal's growth, therefore she cannot be as good a milker, or impart the same vigor of constitution to her offspring. We know by accurate experiment that an old sow's pigs are worth twenty-five per cent. more than a young sow's. They have more vigor of constitution, and make the largest and most profitable hogs. The reason why our breeds of hogs so soon run out and disappear, arises mainly from the erroneous practice of breeding from young sows. Therefore, instead of killing their best sows this fall, farmers should keep them over for breeders, and make pork of their young ones. In Europe, no farmer of any reputation thinks of raising pigs from young mothers, any more than of keeping a dry cow for milk; but old sows are kept for breeders until they are too old to be profitable in this respect."

AGRICULTURAL ITEMS.

—The statement is made that 200,000 Vermont sheep were killed for mutton last year.

—There are now in the State of New York more than five hundred cheese factories, using the milk of over 200,000 cows. From Herkimer Co., alone, 18,172,913 lbs. of cheese, were shipped last year.

—A correspondent of the *Mirror and Farmer* says, cattle are very little over half wintered on the first day of March, take the seasons as they average.

—The Agricultural College of Illinois, has been located in Champaign County. Other counties which bid liberally for the prize feel aggrieved by the decision.

—A State Fair of fine stock, mechanical, scientific and agricultural machinery and inventions, is to be opened on the first Monday of May, next, at Baton Rouge, Louisiana.

—Dr. Fitch, the State entomologist of New York, reports that the canker worm has been discovered in large numbers at Geneva and neighborhood. He recommends tarring the trees!

—Mr. V. M. Hubbard, of Rochester, North Hollow, Vt., whose stock, particularly his Spanish sheep, were mentioned recently by a correspondent, informs us that one of his ewes has dropped a lamb which weighed 13 1-4 lbs.

—A correspondent of the *Country Gentleman* says that the yield of potatoes in Salem County, N. J., has decreased in that section during the last twenty years, from 200 or 300 bushels per acre, to 50 or 75.

—Gardner B. Weeks, of Vernon, N. Y., Secretary of the American Dairymen's Association, solicits the communication of the names of all the cheese factories in the United States.

—A bill has passed the Lower House of the Legislature of Illinois, appointing a State Entomologist, with a salary of two thousand dollars per annum, and there is another before it providing for an Ornithologist.

—A correspondent of the *Western Rural* at Lawrence, Mich., says, "Most of the farmers here have hop-yards, or are intending to put out yards in the spring. They are busy getting out hop poles, which are in good demand; worth $4 to $5 per ton delivered."

—Mr. R. Dart, of Ripon, Wisconsin, says, through the *Country Gentleman*, that a dry cellar is the only place he considers perfectly safe for wintering bees in his climate. His cellar is dry, and 32 by 26 feet, will hold 110 swarms, with room for passage ways. He is wintering 81 swarms, and does not think the loss of bees would be over a

quart from the whole stocks up to this time. His bees consume more honey from 20th of March to 20th of May than they do from November 1st to 20th of March, in his cellar. He does not carry his bees out of cellar, before middle of March. He does not feed his bees while in the cellar, nor disturb them in any way. Does his feeding in the fall.

—A farmer on the prairies of Southern Wisconsin informs the *American Farmer* that rabbits are increasingly numerous on those prairie farms, and very destructive; and strange as it may seem, wild geese in large flocks are great depredators in the corn fields in the fall, and on the wheat fields in the spring.

—The *Tribune* says that W. S. Carpenter, of New York, has transmitted to the Paris Exposition, one hundred and fifteen varieties of Indian corn, each of which has a name. The most remarkable ear in this collection contains 1,290 grains, arranged in twenty-two rows, and is known as the "Western Gourd seed."

—According to a statement in the Wisconsin *Farmer* the Colorado potato bug is moving Eastward at the rate of 25 or 30 miles a year. The line of march, somewhat crescent shaped, had reached Madison, Wis., last summer. Dr. Fitch estimates the Eastern progress at fifteen miles per year.

—A correspondent of the *Country Gentleman* says that a chilled lamb requires a greater degree of heat than is usually supposed. He places them near or under a stove that heats the zinc so that you cannot hold your hand on it, with a good fire on, so that the heat from stove is uncomfortable to your hands as you turn and handle the lamb.

—A correspondent of the *Rural New Yorker*, who tried the horizontal method of training hops with short poles, on ten acres last year, is now substituting long poles. He says the labor of training the vines is very great, as they will not run an inch around a twine horizontally, and when grown in that way the vines are so thick and shaded as to lessen the crop and increase the labor of picking.

—The *Maine Farmer* says that H. G. Abbott, of North Vassalboro', has for several years been making experiments in sheep-rearing, in the effort to obtain a medium breed between the Spanish and natives, so as to combine a good quality of wool with good mutton, each point being about equal in value. He has succeeded in producing a flock of very fine appearance and quality.

—Mrs. Tupper, of Brighton, Iowa, says that she has wintered her bees successfully for six winters in a dry and moderately warm cellar, where the thermometer usually is about 20° above the freezing point. Here they are perfectly quiet, not a sound comes from them; they seem to remain torpid. A hive weighing 60 pounds in the fall of 1863, wintered out of doors, weighed only 15 pounds the 1st of April, while twenty kept in the cellar the same three months lost on an average only five pounds each. Again, six hives wintered out of doors lost an average of 29¼ pounds each in three months, while twenty in the cellar the same length of time lost an average of only 5¾ pounds.

—The California Agricultural Society requires that a first-premium work-horse shall be between fifteen and sixteen hands; quick, lively ears; broad between the eyes; round barrel; short loins; well up in the shoulder; deep chested; square quarters; flat legs; short between the knee and pastern, and hock and pastern; hind legs well under him; speed equal to eight miles an hour on the road, and at least three miles at the plough; with sufficient blood to insure spirit and endurance.

EXTRACTS AND REPLIES.

LICE ON PEAR TREES.

I have at last discovered what I have long been looking for in the FARMER, viz: a remedy to destroy lice on young pear trees. To a pail full of warm water, put a handful of whale-oil soap, stir it until it is dissolved, and when cold, take a brush,—an old shoe brush is just the thing, as the bristles must be stiff,—and brush the trunk and branches and you will be rid of the lice. The trees will thrive and look healthy. Even as a fertilizer, the soap and water will pay. The best time to use it is on a spring morning when the bark is covered with moisture. F. WEIS.

Dorchester, Mass., Feb., 1867.

REMARKS.—From frequent personal notice of Mr. Weis' fruit trees and currant bushes, we know that he has good success in their culture, and our readers will appreciate the information he imparts regarding the bark-lice. Mr. W. will understand that we are always glad to receive practical hints on any subject pertaining to agriculture or horticulture, and if he does not find so many such as he would like in the FARMER, it is simply because our practical readers neglect to impart the secret of their success.

THE CORN CROP.

The large amount of land in Massachusetts, lying almost useless, and the high price of corn, tempt me to write. A few make money on vegetable farms. The same men might grow corn to a profit, had they the trade as well learned as they have that of raising garden vegetables. A man in the prime of life, with one hired man for the eight summer months, will be able to do the work on a farm, large enough to raise from six to eight acres of corn, with a proper proportion of barley, oats, potatoes, and roots sufficient for the necessities of the stock; allowing a proper rotation of crops, his hay crop may be abundant; his loam and muck deposits, with proper and careful management, will supply the needed balance of manure.

One yoke of oxen, and one horse, will do all the work on such a farm, if properly used, and the tools used are of a proper make.

One advantage of this system of operations is, the men have all the time for work, through the day, and the night for rest; whereas, on the market farm, several hands are necessary, and a number of horses required to transport the crop to a market. Much of this is done in the night time, which adds to the wear of both man and beast. Farmers and gardeners! please discuss this sub-

ject in all its bearings, and let us come to a just conclusion upon a matter that has a direct bearing upon all classes of citizens in a New England community.

An item of much importance in growing corn, is to have *seed* that can be depended on. Some years, (and the last was such an one) corn does not ripen well in the field, and much of it will not germinate. We should, therefore, be on our guard and note carefully what we plant. Examine the corn before and after it is shelled, and you can judge very accurately as to its quality. In selecting corn for seed, do it on the cob, then you may get that which is perfect. An ear of corn with ten rows half the length, and eight the other half, is not perfect; neither is it quite right if the butt end is scattered, and none should be planted except the tip is covered with kernels. When such ears are found, then plant the whole corn found on the ear.

The manner of planting corn, and going through the whole process has much to do with the profit of the crops. The writer might particularize his method, but it would be but one among many modes practiced. Now it is a fact that many fields of corn do fail to pay, on account of mistakes made in the labor expended.

Would the farmers in every town meet together, *lay aside prejudice*, and discuss matters relating to their business, much might be learned that would be beneficial. ROBERT MANSFIELD.

Wellesley, Mass., Jan., 1867.

MELONS AND SQUASHES—COMPOST.

MESSRS. EDITORS:—In answer to the request of "F. W. C." of North Oxford, Mass., through the N. E. FARMER of Feb. 23, I will, with pleasure, reply, briefly, as follows:—

As to seed, I have planted the long, dark green melon with black seeds, from the south. They have grown larger than any other kind I ever raised; weighing between twenty-five and thirty pounds. They have been called "very nice," by my friends, and I could not dispute their judgment. I prefer seeds two or three years old, for early maturity of melons; although seeds but one year old will come up quicker.

The very best that I have raised, and weighing from ten to fifteen pounds, were a long, light green, with red seeds; brought from the south two years before. These had less waste, and were more delicious than any other kind raised in my ground.

I never save the seeds of any unless they are first rate of their kind.

Water melons want a rich, light soil, porous and hot—no matter how hot—to be very good. A strong, heavy soil may produce large ones, but not often very good ones.

After the ground is right in other respects, I dig holes for hills nearly the size of a bushel basket, and put in the bottom from a peck to half a bushel of compost, having not more than six hills to the square rod, and leave not more than 4 or 5 vines to mature in a hill.

For Marrow or Hubbard squashes I would like a stronger, but always a warm soil, and, like that for melons, the whole surface supplied with food for the joint roots; then holes for hills the same in size, but not more than four to the square rod, and not more than three vines to mature in a hill. The seeds I would wish to be more than one year old. I always select seeds from the very *best;* not from any merely because they are large; having a greater preference for the good than for the great. Yet I do not despise greatness, except when it is mean.

Every kind of garden product, I think, is better when it makes a quick growth.

I fix my compost in the Autumn, when possible, for such things, and find water melons for August and September and Marrow squashes for winter, cheap and excellent food for cows, as well for the laughing and singing accompaniments of farmers and gardeners.

For a compost, take night soil, with from a quarter to half the quantity of plaster, from four to eight times as much of charcoal dust, or dry and pulverized muck, or a mixture of them, and if they cannot be had put the amount of rich loam to which some caustic lime or hard wood ashes has been added to destroy acids. Work it well together after it has lain mixed in layers through the winter.

If the compost is not mixed until near the time of application, I like to put some strong ashes or caustic lime, or both, on the compost in every hill, before filling up the hole. I wish to have the compost at least four inches below the seed, and that to be filled with rich, active, surface soil.

If these ideas may serve squashes, and those who love them, and make melons more desirable and more abundant, I shall be satisfied, and wish all prosperity to the printer as well as the gardener. A. G. C.

Lee, N. H., March, 1867.

EFFECTS OF BREEDING IN-AND-IN.

I have a high grade Suffolk sow, which recently brought forth a litter of thirteen pigs. Only nine survived the trials of pighood. Of these, two were found to be of doubtful gender,—hermaphrodites. Some of my neighbors advised me to kill them, thinking they would be valueless. Curiosity led me to spare them. Thus far they have done as well as others of the same litter. What the flesh will be, I shall not know till they are butchered.

But the cause of this freak of nature is what interests me; and thinking that it may interest other stock breeders, is the reason of my writing.

I have no doubt that a violation of the laws of animal life, was the procuring cause.

If I mistake not, we had it from quarters which we are all accustomed to respect, that there is no harm in breeding in-and-in.

To me, it seems so obviously opposed to reason and Scripture, that I wonder any believer in both, or even one, should doubt.

The present condition and past history of royalty, in all monarchical countries, settles this question beyond all doubt.

To what else is attributable the notorious fact, that the palace is more often filled with dwarfs and idiots than the peasant's cottage? that the offspring of blood relatives are proverbially sickly dunces? that farmers who disregard this law, are never successful in stock raising?

I have learned since this development named above, what I knew not before, that the mother and the pigs are indebted, for their origin, to the same paternal head.

This is the fourth litter I reared by the same mother. All of the first three families were strong, healthy and *proper* grunters; so much so, as to command any extra price. From this I infer, that the laws of generation, like every other law of nature, must be observed or the penalty will be exacted. R. B. H.

MY EXPERIENCE WITH BEES.

Two years ago this spring, I purchased a swarm of bees. The first year they swarmed twice during the month of June, and made about two pounds of honey for my use. The hives were wintered in the chamber of an unoccupied house, and came out strong and healthy in the spring; but the season was very unfavorable for bees, in this section, and I had only one swarm, (the only one I have heard of in our vicinity.) On weighing the hives in the

fall I felt sure that it would be best to try to winter only two swarms, and so two were taken up. The rest were put in a dark closet above the kitchen. About the 20th of January I examined them and found them all dead. In one hive the honey was all consumed, and in the other there were about four pounds. The hives had been turned bottom upwards to allow the moisture to pass off, as recommended in Langstroth's work on the honey bee, and perhaps the occasional jarring in the room below caused the bees to go *up*, and then they didn't think of going *down* for the honey. I hope no one will be discouraged by my experience, for I think two of the hives, at least, might have been saved by liberal feeding in the fall, and as it was, I lost nothing but my time, for I got honey and wax enough to cover first cost. I think by my own observation and what I can learn from others in this section, that the past season has been the most disastrous to bees of any on record, for a long time. I mean to try bee-keeping again, and expect better success. SELRAHC.

Worcester Co., Mass., Feb., 1867.

REMARKS.—We admire the pluck of our correspondent. Instead of being disheartened by his partial failure, he has the courage to make it the subject of his "first attempt at writing for a newspaper." As a general thing, agricultural writers are too much indisposed to report unsuccessful experiments.

FLOUR OF BONE.

If any one who used the Flour of Bone, the past season, has derived any benefit from its use, I wish they would just say so in the FARMER. I think this would increase its sale more than any other kind of advertising. I have tried it on corn with little benefit. It did not pay. I put about a gill of this flour of bone, manufactured by the Boston Milling and Manufacturing Company, on a hill, previous to first hoeing. Either I did not apply it right, or the soil or climate, in this latitude, is not agreeable to it; or the season was unpropitious; or some unknown cause counteracted its good effects; or it was worthless. What I received was not so fine as I expected from the name. Much of it was in pieces as large as beans. I have purchased ground bone before much finer; albeit the name was not so fine. I once used Coe's Superphosphate, and it nearly doubled my crop of corn. But it is said that this sometimes proves worthless.

Derry, N. H., Jan. 4, 1867. E. B.

TRANSPLANTING TREES.

Is February a good month to transplant evergreens, elms, maples, &c., on a sandy soil, by taking up with them a large ball of frozen earth?

Castleton, Vt., 1867. D. W. P. FINEL.

REMARKS.—Yes, Sir, and every one of them will be likely to live, if the work is well done. Secure the large ball, and when it is placed in the hole where it is to remain, pack under it and all around it with rich soil, leaving no air-holes and spaces for it to rock about. An elm now stands before us, two feet in diameter and about 40 feet high, which we set in a winter day when the mercury stood at *nine degrees below zero!* Do the work well, and you have no trouble.

A NEW HAMPSHIRE FLOCK OF SHEEP.

In the winter of 1866, I kept a young buck with 10 ewe sheep. He was put with the flock October 1, and continued with them. In January, I was offered for the ten ewes $60, but I did not sell, and in the month of March they dropped fifteen healthy lambs, one of which, by an accident in the barn, was injured and died. I fed my sheep with meadow hay till the first of February, then on clover till pasturing time. My sheep had no grain or vegetables of any kind. The lambs I commenced feeding as soon as they would eat meal, giving them two quarts per day, upon an average, till turned out to pasture. On the 20th day of June I sold 10 out of the 14 lambs for $60, and the last of July I sold 3 more for $12, which left me one ewe lamb. The sheep were all natives but one, and that a Canada ewe. The exact weight of wool I cannot give, but it was about 40 pounds, worth 50 cents:—

10 lambs	$60.00
3 do	12.00
40 lbs wool, at 50c	20.00
1 lamb left	3.00
	$95.00

My buck died in the pasture in July, and in September I purchased another young one which is now with the same 10 ewe sheep. My little flock have eat nothing but meadow hay as yet.

A SUBSCRIBER.

Kingston, N. H., Feb. 16, 1867.

HOW TO FEED CALVES AND HEIFERS.

I wish to inquire the best way to feed calves, say from five to twenty months old. I am feeding such with the best of hay, but I want to know if a little meal and shorts will do any harm? Some farmers say they will, and some that they will be an improvement. I am feeding half a pint of meal and three half-pints of shorts per day, to a heifer ten months old. A. B. CARD.

Centredale, R. I., 1867.

REMARKS.—You are feeding judiciously, in our opinion, and your heifers will pay you liberally for such care. The truth is, that many of our calves and colts get a "stunt" while young, which they do not recover from for years, if they ever do. A perfect animal can never be obtained unless its wants are liberally supplied, in regard to food, shelter, and comfortable accommodations. Some animals are fed well, but are so cramped for room that, like a vigorous tree in a stone wall, they can scarcely grow without pushing the barn over. Others are fed well, but are so exposed to cold and storms that they grow very slowly, or yield little milk.

A too liberal use of grain for young animals is undoubtedly injurious. No farmer of good judgment need err in this particular.

SPECIAL MANURES.

There is so great uncertainty regarding the fertilizing value of most of the special manures, now-a-days pressed upon the attention of the farmer, that it would seem wise—though I don't know as it could be done—to have a Board, either appointed by the Legislature of the several States, or otherwise, to examine most thoroughly, and report after a proper test, upon their actual value to the farmer.

We all well know what fortunes are made by the manufacturers of these articles of commerce; how extensively they are advertised, and how almost every means is exhausted to induce us to give them only a single trial. But in many instances this "single trial" makes quite an inroad into the farmer's pocket, who usually has the satisfaction of knowing that he positively *earns* his money.

My attention was called to this subject by perusing one or two articles, in a late number of the FARMER, in which quite unsatisfactory results are recorded. Now, is there no remedy for all this? and must we continue to be thus imposed on?

Salisbury, Ct., Feb. 10, 1867. W. J. P.

REMARKS.—We very much doubt whether any Board would afford us much protection. Manufacturers in England are accused of furnishing a different article for the inspection of Assayists and Boards from that which is offered in the market. "Where there is a will there's a way" in cheating about manures, as well as in other things.

POLYPOD BRAKES.

I have a meadow which bears a good burden, but a great portion of it is a kind of brake, known here as Polypod Brakes, which cattle will not eat. I wish to inquire, through the FARMER, how I can kill them, and get the meadow into good meadow grass? I have flowed the meadow for several winters, and find that it improves it some, but does not kill the brakes. A YOUNG FARMER.

REMARKS.—Thorough drainage would undoubtedly cause the brakes to disappear. Plowing, manuring and cultivating, would render the drainage more effectual.

LEACHED ASHES.

We are often asked what is the value of leached ashes, compared with that which is unleached. Leached ashes is supposed to retain, after the ordinary process of leaching, about 33 per cent. of the potash which it contained before it was leached. But its whole value does not consist in this. There is more or less lime and silex in it, either uncombined, or in the form of silicate of lime, both of which are valuable fertilizers, especially for the grasses. Then, a careful examination discovers a considerable percentage of charcoal, in the form of small particles not completely reduced to ashes. This is valuable.

Potash has a strong affinity for nitric acid; a small percentage of this exists in the atmosphere. It is supposed to be formed by the action of electricity upon the atoms of nitrogen in the atmosphere, causing them to unite with the oxygen, the other constituent of atmospheric air, or with the oxygen of water which is ever present in the form of watery vapor in the air, and form nitric acid. This is brought down by rain, and especially by snow, and unites with the potash contained in the ashes, forming nitrate of potash, or saltpetre. A portion of this is always found in leached ashes that has been exposed to the action of the air, and adds much to its value.

A similar affinity exists between lime and nitric acid. Hence the plastering on old walls becomes impregnated with nitrate of lime so that when ground it is a valuable fertilizer. It is said that in China a man will put a new plastering on an old wall, and consider himself paid by having the old for manure. We think that the charcoal, lime and nitrate of potash added to the 33 per cent. of retained potash, render leached ashes worth about half as much as unleached, and that it will always pay to purchase it, at about half the price of unleached ashes. R.

Concord, Mass., March, 1867.

WHEAT-GROWING IN VERMONT.

In reply to inquiries by Caleb E. Parmenter, of Attleboro', Mass., I would say that wheat-growing in Vermont is getting to be good business. Farmers are waking up to the importance of raising their own breadstuffs. When they call to mind the price of flour they begin to exert themselves to raise wheat. Whether winter or spring wheat is sown, depends on the soil and location. Winter wheat does best on dry soil, so located that the snow will not drift so as to lay on it late in the spring, causing it to winter or spring-kill. The land should be in a condition to produce corn. The best kind of winter wheat is the White Flint, as it makes the best flour and yields well. The best kind of spring wheat raised in this vicinity is the Canada Club, which grows in all locations—in the valleys and on the hills. A few years ago farmers thought they could not raise wheat on the Connecticut River; and in fact they could not, until they obtained the Club wheat. This variety can be obtained almost any where in Vermont. It will be useless for me to give directions in regard to raising winter wheat, although I will say it should be sowed in August, so that it can get a good growth before winter sets in. WILLIAM ALLEN.

North Hartland, Vt., March 11, 1867.

A BARN CELLAR.

I am planning to put a cellar under my barn. I want a receptacle for the manure under the stable, and the same size, 12 by 30 feet, that shall be tight, so as to hold the liquid as well as solid droppings. Can it be done, and in what way? D. L. T.

Marlboro', N. H., Feb. 27, 1867.

REMARKS.—Yes, sir, in several ways. You can cement it, as is frequently done for both barn and house cellars.

You can pave it with flat or small stones, laying them in clay, instead of sand.

Or, you can pave it *with clay alone*, so that it will not leak or be cut up readily by cart wheels, when backing in.

First, make the bottom smooth. Spread the clay on one side, one inch deep; then pound it down with a stake sufficiently long and large to work easily with. The bottom of the stake should not be more than two inches square. When this is rammed so as to appear almost like stone, add another inch, and so go on until you get the bottom covered with clay to the depth of three or four inches. If the clay is too dry to set and stick when struck, sprinkle *sparingly* with a fine waterpot. If you do it well, in this way, you will have a cellar bottom as tight as a bottle, and one easy to shovel on. It would not answer, however, to keep a lot of hungry hogs on. We made one nearly twenty years ago, which is in good order now.

WHEAT CULTURE.

I would say in reply to the inquiries of Mr. Parmenter, in the FARMER of March 9th, who wishes to learn more in regard to wheat raising in Vermont, that in this immediate vicinity we raise spring wheat, almost exclusively; and the variety that has been most popular for a few years, is a kind of "black sea wheat," recently imported by an officer in the Crimean war. It is bearded, and has a very heavy growth of straw. The millers say the skin of the berry is very tough, so that it is almost impossible to grind any of it into the flour, and hence the flour is very pure and of a superior quality. We think it has proved more "sure" of producing a good crop than any other variety. It is hard to thresh, and seldom gets threshed so clean that the stock fail to find kernels enough,

while eating the straw, to keep their courage up; yet what is threshed measures up satisfactorily, averaging from 20 to 40 bushels per acre.

The berry is not quite so plump and fat as some other varieties, and some think the straw is not so stiff as it ought to be; but I rather think it would be as stiff as other kinds, if it did not grow any longer, or produce more tons per acre. It is now selling here for $3 per bushel, for flouring, and pure, selected largest kernels only, and cleansed, could probably be obtained for $3.50 per bushel, for seed, by the barrel.

Our mode of culture is almost precisely as described by Mr. Hutchins, in the same paper. I sow it the second year from the sward.

RUFUS NUTTING.

Randolph, Vt., March 9, 1867.

CATTLE CHEWING BONES, &c.

I should like to know if you or any of your subscribers can tell what will cure cattle of chewing bones and bits of boards? I have tried salt, ashes, lime, plaster, flour of bone, and pieces of old mortar, but they do not stop the habit. If you can inform me, you will oblige a subscriber.

Holliston, Mass., Jan. 24, 1867. R. P.

REMARKS.--This bone question is somewhat of a vexed one. It will be easier, we think, to say what will *cure* it, than to say what *causes* it.

Some impute it to a want of salt; that cannot be, for cattle chew bones that have constant access to salt, are fed on salt hay partly, and even live directly on the sea shore. We have seen a case recorded, where about 40 head of cattle were nearly rabid all winter with this morbid appetite for old bones, pine boards, &c., although the farm was washed by salt water, and the cattle were fed half the time with salt hay.

The *cause* of this appetite seems to us to lie in the great change from an abundant, succulent and nutritious food, open air and exercise, to dry food and confinement.

The *remedy* must be, first, in cultivating the land with a proper rotation of crops, so that the grasses and grains will prove sufficient to produce, in growing animals, all the parts belonging to them, such as hair, horns, hoofs, wool and bones.

Second, give animals an opportunity, at all seasons of the year, if possible, to come to the bare ground, for an hour or two at a time. We well remember how eager the oxen were to lick the furrows when we first began to plow in the spring, and how voraciously a horse would sometimes eat half a pint of the soil, and if let loose, roll and rub himself in it, with more delight than a group of boys would roll themselves in a lavender bed! If the ground is covered with snow, manage to preserve some earth from freezing, and place it about the yard, a quart in a place, several times during the winter.

Third, where evergreens are abundant and handy, it will be economical to lay them before the neat stock and colts, as well as the sheep.

Cribbing horses, and those that merely gnaw their mangers, may be cured by allowing them the freedom of a little yard in the open air, access to the ground, and a *variety* in their feed.

All our stock need a variety of food in the winter. A mess of roots daily, and a little grain, added to hay and corn fodder, would be quite likely to stop bone-chewing.

At the same time, if an animal will eat bone meal, give it to him, as much as he will take; if the meal is not at hand, break the bones with a sledge or hammer, as fine as you can. Give salt frequently, be regular in the time of feeding, keep the barn clean and *sweet*, and there will not be a general habit of chewing bones, though occasionally a single case may occur with cows in calf, or those who have just dropped them.

HOW TO DRY BEEF.

I wish to inquire through the NEW ENGLAND FARMER, the best way of preparing and drying beef? A SUBSCRIBER.

East Abington, Mass., 1867.

REMARKS.—The best dried beef we ever ate was at the table of E. D. Rust, Esq., now of Brandon, Vt., and was prepared as follows: For 100 pounds of beef make a brine of nine pounds of salt, two pounds of brown sugar, one quart of molasses, two ounces of saltpetre, two ounces of saleratus. Mix them well together in water, then boil and skim. When this is cool, pour it over the meat, being careful to have every particle of it covered with the brine. Let the beef remain in the brine until the seasoning has struck through it, then take it out, wipe it dry and hang it up. Some persons hang it overhead in the kitchen, for a week or two, and then in some place more out of the way. When sufficiently dried it may be inclosed in bags so tight that no insect can enter, and kept in a cool, dry place. If desired, it can be smoked for a day or two, or longer, as hams are smoked.

STEAMING FOOD FOR CATTLE.

Will you give me your opinion about steaming food for cattle? I have more coarse fodder than good hay, and should like to know the best way to feed it. WM. HOWLAND.

North Dartmouth, 2d mo., 20th, 1867.

REMARKS.—Steaming food for cattle is profitable, no doubt, if a large stock is kept where fuel is moderate in price, and where one can have a systematic and somewhat skilful person to attend the operation of steaming.

The next best course is described in the weekly FARMER of Nov. 10, 1866, a copy of which we send you.

WEATHER—SUGAR-MAKING—SCARCITY OF CATTLE PRICE OF HAY—SNOW DRIFTS.

Another winter has gone, and another spring comes *Marching* on. Now and then a solitary blue bird is heard sounding its notes on the adjacent hills, but the prospect is that we are not yet done with Jack Frost. For a week past the weather has been warm and spring-like, but now it has changed, and winter seems to be struggling once more for the mastery.

The farmers up here on the hills are making active preparations for the sugaring season, and they expect a generous flow of saccharine fluid.

There is a great scarcity of cattle, most of them having been sold the fore part of winter; many far-

mers being unable to keep them on account of having a small crop of hay. Hay brings thirty dollars a ton, and still has an upward tendency.

The snow has not entirely taken its departure; in some places there are yet drifts from fifteen to twenty feet deep. CHIEL.

Shelburne, Vt., March 4, 1867.

BEES LOST IN SPRING.

In reply to a correspondent who inquires for some means to prevent the loss of bees in the spring, which sometimes almost blacken the snow in front of the hives, we copy the following directions from Mr. Quinby's Work on Bees:

"To prevent their leaving the hive at such times, a wide board should be set up before it, at least as high as the entrance in the side, to protect it from the sun. But if it grows so warm that the bees leave the hive when thus shaded, it is fair evidence that it will do to let them sally out freely, except in case of a new snow, when they should be confined to the hive.

The hive may be let down on the floor-board, the passage in the side covered with wire cloth, and made dark; raising at night again, a little for ventilation.

It has been recommended to enclose the whole hive by a large box set over it, and made perfectly dark; with means for ventilation, &c. For large families this would do well enough, as would also some other methods. But I would rather take the chances of letting them all stand in the sun, and issue at pleasure, than to have the warmth of the sun entirely excluded from the medium sized families."

INCOME FROM A HEIFER.

I have a four-year-old heifer that calved the first of last May, and comes in again the first of April next. In ten months she has given sixteen barrels (2048 quarts) of milk. The calf was sold for eleven dollars. Now, suppose I had sold her milk for six cents per quart, it would amount to one hundred and twenty-two dollars and eighty-eight cents, making, with the calf, the sum of one hundred and thirty-three dollars and eighty-eight cents, for the use of one cow for ten months. I do not make the above statement because I think my heifer is better than many owned by my neighbors, but because I think we are not aware what a noble lot of milk, butter and cheese we get from one good cow in a season, besides all the sour milk for the hogs. J. L. B.

Epping, N. H., March, 1867.

GOOD ADVICE.

I was much interested in an article, page 22 of the January number of the Monthly FARMER, entitled, "Shall I sell my little Farm?" A reply to it contained much that had both wit and wisdom in it.

The choice of occupation for the young has always had a kindly consideration in your journal, and it was never so much needed as now. I trust you will yet urge that we do not all join in the rush for South or West. Indeed, those of us who are not under the influence of some mania, are fortunate. I would use all my influence with our present "well-offs," to adhere to the farm.

J. H. C.

A GIRL'S BIDDIES.

A kind neighbor lends me the NEW ENGLAND FARMER to read, in which I take a great interest, especially in the Ladies' Department. Some of the receipts I have tried, and like them very much.

As I have been much interested in what one and another have said about their hens, others may be interested in a brief notice of my five biddies during the past season, one of which brought up a brood of chickens. They were kept shut up most of the time. I gave them all the crumbs and scraps of meat from the table, and kept bones and shells pounded, by them. They commenced to lay in February, and laid sixty dozen eggs. Two pullets have been added to the number this year, and they commenced to lay in January, and laid 8 dozen eggs up to March 12. P. A. P.

East Brookfield, Mass., March 12, 1867.

KEROSENE OIL.

We bought a pair of oxen a short time since, on which we found lice. Were advised to apply kerosene oil, which killed all the vermin as far as it went, for it has taken the hair all off and enough of the skin, we should think, to take the roots, too, leaving the flesh sore. S.

Guilford, Ct., March, 1867.

For the New England Farmer.

BOMMER MANURE.

MESSRS. EDITORS:—Will you give us Bommer's method of preparing manures as it is now open to the public, and also tell us which is the best book that treats on the cultivation of small fruits.

A NEW FARMER.

REMARKS.—About thirty years ago a gentleman in France by the name of Jauffret invented and patented a process for *composting*, or making manure of old straw, hay, weeds, or any coarse vegetable matter, by inducing a rapid decomposition, &c. The following synopsis of the French patent was prepared and published by us several years ago.

Jauffret's plan was to form a tank or reservoir for water, saturated with decomposing animal or vegetable substances, which may be found on almost every farm. This may be composed in part of drainings from the barnyard, soap-suds, sink water, urine, &c.

A ley is then prepared in a vessel, or small tank or pit. In preparing this ley, it is better to take the drainings from a former heap, or for the first time take liquor from the reservoir, or soap-suds, sink water, and other liquids rich with vegetable or animal matter.

To decompose one thousand pounds of dry, vegetable substances, or twice that weight of green materials, add to the liquor in the vessel, or small tank,

200	pounds of	night soil, or twice that quantity of horse, cattle, sheep or swine manure,
50	"	" wood soot,
50	"	" unleached ashes,
200	"	" plaster,
30	"	" quick lime,
1	"	" common salt,
1	"	" saltpetre.

These ingredients may be varied; and it would be an improvement to increase the quantity of quick lime and ashes, and reduce that of plaster. If these materials cannot be conveniently obtained, others may be substi-

tuted. For the soot, use a larger quantity of the burnt earth of coal-pits. For plaster, use a larger quantity of street manure, slime from ditches, or other similar manure. For ashes, use five or six pounds of potash or soda. Stir the liquor, on adding the plaster, and throw in a little at a time, lest it cake.

The materials for manure are thrown into the reservoir and soaked in the liquor, to prepare them for decomposition. Then they are thrown into a heap, by the side of the reservoir; a place for which should be prepared by laying at the bottom clay, or compact earth, so that the drainings from the heap, and the ley poured on the pile, may run off into the vat, and not be absorbed by the earth, as it would be on a porous soil.

The heap may be made six or seven feet high, six, eight, or ten feet wide, in order to hold the heat, and of any convenient length. In forming the heap, after making layers of about a foot, turn on some of the ley, that it may be applied to every part of the materials. When the heap is completed, turn the muddy sediment of the ley on to the heap. Then cover the top of the heap with straw, old planks, or branches of herbage. In forming the heap, it should be trodden down to make it close, and it should be beaten all round for the same purpose.

The fermentation usually commences in two days, and on the third day, the top of the heap is to be opened about six inches deep, the sediment turned over, and another good drenching of the ley applied, and the heap covered up. About the seventh day, make many holes in the heap, about three feet deep, and give another good drenching with the ley. About the ninth day, another good drenching, in new and deeper holes.

After fourteen or fifteen days from the making of the heap, the manure will be fit to spread. The fermentation is checked by an excessive drenching, or by opening the heap. The drainings should be caught and used over again, and what remains is used for future heaps. Warm weather is most suitable for making this manure.

In 1843, a man in this country by the name of Bommer applied to H. L. Ellsworth, then Commissioner of Patents, for a patent for making manure which was for want of novelty rejected, as it was virtually the same as Jauffret's plan. Subsequently an application for a patent for an improvement on the French process was obtained by Mr. Bommer, whose name has thus become associated with this subject. With how much justice will be seen by the following specification of his claim.

"What we claim as our improvement on Jauffret's method of forming manure by the rapid fermentation of vegetable fibres, is, first, the forming of the said vegetable matter into piles or heaps, without its first being immersed in the prepared ley, and the subsequently saturating the same by pouring on the ley in the manner set forth."

In relation to the second request of our correspondent, we may say that all the books published on this subject contain much valuable matter, but for a cheap work we have no hesitation in recommending Cole's Fruit Book.

For the New England Farmer.

NOXIOUS ANIMALS, INCLUDING INSECTS.---NO. III.

BY I. B. HARTWELL.

A common objection to what has been written in reference to noxious insects is, that while we get therefrom perhaps a long Latin or Greek name, and an elaborate scientific description and history of some species, we obtain few infallible preventives of their injuries.

It is indeed true that neither the scientific nor practical entomologist can often give us the infallible remedies we want; but that which they do give us is not only highly interesting to every lover of nature, but affords us the only means of seeking intelligently for preventives of insect injuries.

And, perhaps, still stronger objections will be urged against any attempt to prove the utility of that which is noxious, or the necessity of that which is unnecessary. Nevertheless there are some questions about the mission of animals, including insects, commonly called noxious, that are not yet fully exhausted or satisfactorily answered.

Every form of animal and vegetable life, in its different stages of growth, maturity, and decomposition, becomes the aliment of other forms; or in other borrowed words, "to eat and be eaten," is a great law of nature.

It would, perhaps, be presumptuous to attempt to assign the motive for the construction of nature on this plan; yet it is impossible to conceive of any other that would give the maximum amount of animal life and enjoyment. But "to eat and be eaten," or to have the same specific vegetable, as has been said of wheat, assigned in its different stages of growth to sixty different animals, must necessarily cause some clashings of interest; some antagonism, strife and war. And the wonder is, not that on such a plan there should be war, but that neither of the combatants, as a species, should be able wholly to subdue and annihilate the other.

But this war is not animated by malice, revenge, or retaliation, but is simply a struggle for existence; and contradictory as the assertion may seem, the harmony, peace, and prosperity of the kingdoms of nature are sustained by strife, war, and devastation. One portion of the animal kingdom is supported by vegetation exclusively; another by animal food ex-

clusively; while the aliment of a third portion is partly animal and partly vegetable. And these several portions embrace all magnitudes from the animalculæ to the larger vertebrates.

The too important and engrossing pursuits of the animal world are the procuring of food, and the providing for a succeeding generation. And it is chiefly in prosecution of these objects, that they make war upon each other and upon the vegetable kingdom.

Many predatory animals, while hunting and watching for prey, are themselves hunted and watched, and are distracted between advancing and attacking on the one hand, and defending themselves, or fleeing, on the other. And the powers and abilities of the preyer and prey are so adjusted and balanced, that the one shall not always succeed in the capturing, nor the other in escaping, lest the first, as a species, should perish with hunger, or the last by slaughter.

And if the price of life and liberty with man is eternal labor and vigilance, so is it with animals. If the stores of man are often plundered and defiled, so are those of animals. If many animals are noxious to man, so is man to many animals; and so are animals to each other. Nevertheless, innumerable species of animals, under all the danger and disadvantages that surround them, continue to live from generation to generation,—and so does man. And when we examine the vegetable world we find that each species is liable to attacks from animals in its infancy, growth, and maturity; at its root, stem, branches, leaves, flowers and fruit; and although it has not locomotion, and cannot avoid its foes by flight, yet it has such means of defence and protection, and such powers of repairing the breaches made by its assailants, and is withal so prolific, that it still lives and flourishes in all its beauty and grandeur.

And now, in answer to the question of the necessity of animals noxious to man, we can say this much, that they are necessary incidents to the plan and structure of nature as we find it.

I propose in the following articles to notice some of the little noxious animals called insects, and their relation to vegetation and to other animals, as illustrations of the general views herein before presented, hoping that if we find it a part of the original plan that we shall not have the ability to exterminate any species, we may discover the means of keeping them in such a *normal condition* as to numbers, that we can patiently, and consistently with our own well being, endure their normal depredations.

For the New England Farmer.

BONE DUST.

As experiments are the chief source of knowledge, I often wonder that those who are willing to make them receive so little encouragement, and so much discouragement and ridicule from their acquaintance; also that they are so reluctant to publish results, especially if they are not successful.

The very few who have lately related their experiments with commercial fertilizers deserve the thanks of the public; while the multitudes who have not, ought to see the printer's devil after them, every time they sleep long enough to dream, till they do it.

The agent of the Boston Milling and Manufacturing Company assumes that I do not question the *value* of *bone* as a *fertilizer!* I do not, but I do question the value of the "bone dust," or "flour of bone," that was tried in this vicinity last year, in the condition, and in the various ways in which it was tried. I may, and I can but *hope* it will do good *hereafter;* but we bought it for a manurial *stimulant,* something that would produce an immediate and perceptible effect; that would operate quicker than unfermented or raw manure, and more powerfully than ordinary animal excrement. We were sadly disappointed. Its operation was so slow that now, after ten months, its effects are not discernable, and as to *power,* future time must disclose.

Like some of your other correspondents, we are all here very much "interested to have it prove very valuable," as most of us have old, worn out pastures that are either stony or too hilly to cultivate, and we are anxiously looking for a portable and efficient fertilizer to apply to them.

I do not question that the Boston Company furnish the pure article, and just as they profess; but it is a query whether the small amount of salt they put in with it for its preservation, is just the thing that ought to be put in. Does it not, to some extent, neutralize or render inoperative, the bone? or "fix" the manurial properties, somewhat as mordants do colors? Or rather, does not the bone need something to be added to *hasten* decomposition, or to so affect it that, as soon as applied to the soil, it will *at once* decompose and become plant food?

With my best wishes for all who are increasing the manure heap, for all who make and *report* experiments, and all who encourage them in so doing, I am, *pro bono publico,*

RUFUS NUTTING.

Randolph, Vt., March 15, 1867.

For the New England Farmer.

CHANGE OF SEED.

The question "What advantage do we derive from change of seed?" does not seem to be very well understood by most cultivators. I believe it is by no means of universal benefit to procure seed from other places, either near or distant.

With plants like the oat, which evidently do better in colder climates, we doubtless gain something by sending to Canada or even to

the northern portion of New England for our seed. With such plants as Indian corn, which require a climate comparatively warm, we sometimes secure the earlier ripening of the crop by going to colder climates for seed; but unless it has been carefully selected and brought to a point as near perfection as the climate will admit, we are very likely to reduce the amount of the crop by such change. With the potato, however, I think the case is somewhat different, from the fact that it is not usually propagated from seed, but from the tubers, corresponding very nearly to roots, and consequently merely increasing the individual plant with the same character and peculiarities as the original.

To my mind the whole advantage of change of seed may be summed up as follows:—1. Seeds of some plants obtained from localities better adapted to their growth, sometimes do better for a few years. 2. Seeds from a colder climate frequently retain their earlier ripening for a few seasons. 3. Seeds obtained from careful cultivators who guard against mixture and save the best seeds for planting are invariably better than those grown by the careless. 4. Most seeds may be placed in the third class.

There is one other point in planting potatoes, which does not appear to be well understood; that is, cutting for seed; which, according to my experience, depends much upon varieties and circumstances. For instance, a variety like the long red, or black Carter, with abundant eyes, will bear cutting much better than one with very few eyes. But here comes in another consideration,—the vigor of growth in the early part of the season. This is, to a great extent, dependent upon the amount of support the sprout can obtain from the tuber, and if the pieces are small the soil must be rich and the growth will be later in the season. But when these conditions are favorable, I have obtained much better crops from cut than from whole potatoes of such varieties.

WM. F. BASSETT.

Hammonton, N. J., March 5, 1867.

For the New England Farmer.

FLOUR OF BONE.

MR. EDITOR:—In answer to the inquiry of your correspondent, E. B., Derry, N. H., Jan. 4, 1867, I would say I have used the Flour of Bone made by the Boston Milling and Manufacturing Co., the past season, on my farm at Bedford, Mass. On a field of two acres of corn, I put a half a shovelful of barn yard manure in each hill and a gill of the Flour of Bone with the seed. It came up early, grew rapidly, and ripened early, and the crop was more than a third larger and better than that grown on two fields of the same size nearly adjoining that were manured with a large shovelful of manure in the hill.

On a field of potatoes containing about three acres and a half, I put a large shovelful of barn yard manure in the hill, and on about one-tenth of the field, I used a small quantity of the Flour of Bone with the seed at planting. The part where the bone was used came up earlier, *progressed* more *rapidly*, and was ripe *a fortnight* earlier, with a *much larger yield* than the other part of the field.

JOHN CLIFTON.

Medford, March 16th, 1867.

THE ROBIN.—In reply to some doubts of the generally supposed utility of the Robin which have been recently expressed by certain learned writers, Mr. E. Chase of Blackstone, Mass., writes as follows to the *Farm and Fireside*:—

"The robins have been, for years, my alarm clock in the morning; and how pleasant it is to hear their matin songs, on the elms beside the house, as I walk with pail in hand to the barn. At this time of day their notes are sweet to me; yes, sweeter than the tones of any musical instrument I ever heard played by human hands. If I had a thousand cherry trees, I should be willing the robins should have half of them, as they are a poor, unhealthy fruit, and fit for nothing but birds to eat? I have often been hoeing in the cornfield, when one or more robins would follow me all day and pick up worms from almost every hill of corn. Who could kill a bird that does this?"

HOW TO SUBDUE A VICIOUS HORSE.—A correspondent of the N. Y. *Commercial* gives the following account of the method adopted by an officer of the United States service, lately returned from Mexico, to subdue a horse who would not allow his feet to be handled for the purpose of shoeing:—

He took a cord about the size of a common bed cord, put it in the mouth of the horse, like a bit, and tied it tightly on the top of the animal's head, passing his left ear under the string, not painfully tight, but tight enough to keep the ear down, and the cord in its place. This done, he patted the horse gently on the side of the head, and commanded him to follow, and instantly the horse obeyed, perfectly subdued and as gentle as a well-trained dog; suffering his feet to be lifted with entire impunity, and acting in all respects like an old stager. The simple string thus tied made him at once as docile and obedient as any one could desire.

HOW TO BOIL MEAT.—In *Brewer's Guide to Things Familiar*, we find the following in regard to boiling meat:—

"Why is meat always tough, if it be put in the boiler before the water boils?

"Because the water is not hot enough to co-

agulate the albumen between the muscular fibres of the meat, which therefore runs into the water, and rises to the surface as a scum.

"The best way to boil meat to make it tender is this:—Put your joint in very brisk boiling water; after a few minutes, add a little cold water. The boiling water will fix the albumen, which will prevent the water from soaking into the meat. Keep all the juices in, and prevent all the muscular fibre from contracting. The addition of cold water will secure the cooking of the inside of the joint, as well as of the surface.

"*Why is* MEAT TOUGH *that has been* BOILED *too long?*

"Because the albumen becomes hard, like the white of a hard-boiled egg."

From Chamber's Journal.

OUR LANE.

Where the grass springs and soft winds blow,
And hawthorns wear the only snow;
When lads and lasses stop once more
To play about the school-house door;
And lambs are white upon the leas,
And stars on the horse-chestnut trees,
And birds begin to build again—
'Tis sweet to watch them in Our Lane.

When swallows have their summer made;
And lazy sheep move with the shade;
And the dew loiters on the grass,
Where sweet-breathed cows graze as you pass:
When greedy trout leap by the mill;
And youth goes gaily down the hill—
Who would not be a lad again,
To meet his lassie in Our Lane?

When gossamer floats everywhere;
And golden apples scent the air;
And round about their ancient roots,
Vast pear trees shower their tiny fruits;
And red plums blush 'midst yellow leaves;
And summer friends have left our eaves;
When oaks their leaves no longer hold,
And chestnut trees change green for gold;
And wheat is stacked and sown again—
Then wondrous tints light up Our Lane.

When cheeks look brighter 'gainst the snow;
And crimson holly berries glow,
And ivy reigns, and yew trees sneer
At oak and elm, now sad and drear.
When apples all are pressed or stored;
And ants sit proudly by their hoard;
When pleasant paths look dull and gray,
And old men rest upon their way;
And blackbirds know not where to feast,
And all their pleasant songs have ceased—
Let them be thankful in Our Lane,
If hips and haws may yet remain.

Hearken to what wise black birds say;
"Our spring saw many a merry day;
In summer there were strawberries;
In autumn, we'd the filbert trees;
We tasted all the year could bring,
To mellow autumn from bright spring.
If nuts and cherries all are gone,
There's something to look back upon;
We deem not life unjust because
It comes at last to hips and haws."

—For six years Mr. R. W. Buel, of Franklin, N. Y., was successful in raising onions with no other manure than leached ashes, of which he has applied about a bushel to the square rod. Last year his crop failed, as he was troubled by the maggot.

ON FERMENTING MANURES.

One of the important, and yet unsettled questions in farming, is as to the *best condition in which to use manure;* that is, whether in its fresh, crude state; in a state of partial fermentation; or when the process is carried so far as to reduce the manure to a fine and soft mass. This question is sometimes a vexatious one, and is likely to remain so till an extensive series of judicious experiments shall have been made on the subject by competent persons, equally qualified by theoretical and practical knowledge to arrive at precise results, and to be able to communicate them.

Good farmers vary considerably in their practice; some apply manure fresh from the cellar or heaps under the barn windows; some haul it to the field, deposit in large heaps, compost with peat or other crude materials, and allow a slight degree of fermentation to take place before applying it to the soil, while others throw every thing together and let nature take her own course with it,—and nature, in such cases provides a pretty swift process of decay.

We have experimented sufficiently in this matter to bring clear convictions, that the *best mode* is to apply manure to the land in an entirely crude, unfermented condition, *in the autumn*, and plow it under the surface to the depth of three inches. But this course can only be pursued with the summer manure.

If fields intended for hoed crops are plowed in the fall, they may receive green manure in the spring, just as soon as the soil is sufficiently pliable to fall to pieces when stirred, and then if the manure is immediately plowed under, decomposition will take place sufficiently fast to furnish the growing crop with the aliment it needs.

In this way there is no loss of manure. Not only are all its valuable qualities saved, but they are fed out, as it were, at such times and in such quantities as best suit the plants that require them—much as we feed our domestic animals at such times and with such portions as are best suited for them.

But there is still another and very valuable operation going on in the soil through the agency of unfermented manure. As it heats, it expands; gases, rich in nutriment, fly off from it in every direction. These permeate the soil in all its minutest recesses, warming and separating its particles, and filling them with nutritious food, which the roots of plants are incessantly in search of. And these roots *exercise a choice!* They will make a short turn from a course which they had been pursuing to get at a spots enriched by decomposing manures, and their warm and fertilizing gases! Wonderful instinct! What else can we call it?

Roots only take their food in a soluble form, and if we apply manure in a green state to the soil all the operations necessary to reduce them to a soluble form take place beneath the surface of the ground, and in the very home of the roots themselves. These substances that would become offensive if left upon the surface, are soon converted into forms of beauty and usefulness.

In one of his lectures upon the chemistry of agriculture, Sir Humphrey Davy says: "If the pure dung of cattle is to be used as manure, there seems to be no reason why it should be made to ferment *except in the soil*; or if suffered to ferment, it should be only in a very slight degree. The excess of fermentation tends to the destruction and dissipation of the most useful part of the manure."

A distinguished farmer in England states that he has entirely given up the system formerly adopted on his farm of applying fermented dung; and states that his crops have been as good as they ever were, and that *his manure goes nearly twice as far!*

We call attention to this matter now, as the season is near when the preparation of manure for spring planting and sowing, will be taken in hand.

FARMERS' GARDENS---No. II.

Location.

Every man should do his best to own a home. The first money he can spare ought to be invested in a dwelling, where his family can live permanently. There is something agreeable to our better nature in having a home that we call our own. It is a form of property that is more than property. The associations that spring up around it, as the birth-place of children, tend to improve the moral sensibilities. Our happiness of to-day is increased by a view of the place where we were happy yesterday. The scenes and circumstances by which we are surrounded have much to do, not only with our character, but with our happiness.

On this account, we should do all in our power to make our homes attractive. It costs little to surround our dwellings with these simple beauties which delight the eye far more than expensive objects.

Perhaps there are few things that mark the progress of civilization and the arts more than correct taste in architecture and gardening. So long as men are indifferent to the appearance of the house they live in, and the grounds that surround it, they will rarely exhibit a true taste in anything else.

We are happy in the belief that our farmers are gradually improving in this respect. As intelligence and wealth increase, so do refinement and good taste. In a ramble which we recently took in the western part of Massachusetts, we found much to strengthen this belief, —houses of a better class, well finished and painted,—better fences, smooth and velvety lawns instead of door yards filled with rubbish, —shade trees around the houses and along the highways, and a piece of land set apart for garden purposes, into which a few hardy shrubs are introduced, with small fruits, asparagus, and other esculents, and a variety of apples coming into use from July to July. The garden on the farm is one of the happy changes that has taken place, and was observable all along the route.

The cheerful influences of better buildings and productive gardens have developed a taste for the cultivation of flowers,

> "Whose voiceless lips are living preachers,
> Each cup a pulpit, and each leaf a book."

The garden should conform in its style and character to those of the homestead and its surroundings. It should be in the immediate vicinity of the house, so that it may be readily accessible and under the constant supervision of the household—and if a portion of it is devoted to the culture of flowers, it should be so located that the passing neighbor and stranger may enjoy its beauty and fragrance, if possible.

A good garden needs a variety of soil, and

if it can be so arranged that it will embrace a high and dry soil, and that which is lower and more moist, it will be an advantage. Early vegetables, as lettuce, peas, beans, and early potatoes, need a warm, dry location. Those which come later in the season, strawberries, pears and some other plants, thrive better in a more moist soil. A situation on a southerly slope—if the slope is very slight—near the foot of a knoll or moderate elevation, is desirable. Such a location affords a shelter which most garden vegetables require in their early and tender stage. When situated in the immediate vicinity of the house, it will be more frequently visited by the children and females of the family, and they will become more interested in its products and cultivation.

There should always be a dry and well kept walk from the house to the garden—and if practicable, this walk should be bordered by shrubs or flowers, so as to tempt the feet of visitors as well as the inmates of the house.

As farm buildings are usually erected without reference to a garden, it cannot always be located in the most desirable situation. It is not uncommon, even now, to find the garden ten, fifteen, and sometimes twenty-five rods from the house! This is done to get it out of the reach of the hens. But think of the inconvenience, and amount of travel through a lifetime, with such an arrangement. In the first place, no garden will be well tended in such a location,—and in the second, it is much more expensive than it would be to *prepare* a good soil near the house and enclose it with neat palings or a tight fence that will keep the fowls out. Being near, even a few leisure moments may be spent in weeding, hoeing, or something else, and the table will be often supplied with delicious vegetables, which would not be there, if the women were obliged to go some distance for them.

WORCESTER, MASS.—Officers for the year have been elected as follows by the Worcester West Agricultural Society:—

President—Edward Denny of Barre.
Vice Presidents—George W. Buttrick of Barre, and Hon. Charles Adams, Jr., of North Brookfield.
Treasurer—David Cummings of Barre.
Secretary—Charles Brimblecom of Barre.

It was also voted, "That we appropriate the sum of $50 annually for a scholarship in the Massachusetts Agricultural College, the person to receive the benefit thereof to be determined by the officers and trustees of the society."

WARNER'S SULKY REVOLVING RAKE.

Other things being equal, almost every body prefers riding to going afoot. Hence the chief objection to the revolving horse rake has been the necessity of walking while using it. This the proprietors of the *Sulky Revolving Rake* believe they have successfully obviated, and at the same time preserved its simplicity of construction, and its ease of operation. The proprietors, H. J. Fay & Co., furnish the following description:—

Working Position.

This rake is substantially the common revolving rake attached to a sulky and operated by one single lever, attached at the center of the rake-head, provided with spring, stops and catches for the perfect controlling of the rake. To revolve the rake the operator, with the thumb, springs the latch, and depresses the end of the lever a little, suddenly, which throws the points of the front teeth to the ground, causing the rake to revolve. The rake is elevated to pass over stones or any obstacle that may be in the way of elevating the lever, which raises the front teeth high enough to pass over obstacles twelve to fifteen inches high.

Transporting Position.

This second cut represents the position of the rake when folded for transportation, which is a convenience of no small importance. It is so arranged at the joints connecting the rake with the sulky that the rake is readily detached from the sulky, leaving the sulky free to be used for other purposes, if desired, which often proves a convenience, as it is furnished with an easy spring seat, making it a convenient sulky. After thoroughly testing the merits of this rake during the last three haying seasons,

the proprietors have no hesitation in offering it to the farming public as the best rake in the market for all reasonably smooth meadows, or for meadows suitable to be mown with a machine, and hold themselves ready to test its merits in the field with any other horse rake, at any suitable time and place. Further particulars will be found in an advertisement in another column.

For the New England Farmer.

PROFITABLE FARMING IN MASSACHUSETTS.

Illustrated by a sketch of the success of Mr. PETER DAVIS, of Framingham, Middlesex County, from his first engagement at seven dollars per month, and a six years' tenancy, to the ownership of one of the best farms in the State.

During the last twenty-five years nearly all the increase in the population of New England has been in its cities and villages. In many of the older portions of the farming districts there has been a positive and an alarming decline. The young men and young women appear to think that comfort, respectability and wealth are to be sought in any or every pursuit except that of farming. It would almost seem that the instinct for city life in the boys and girls of our rural districts was as strong as is the instinct for water in the brood of the mother hen that unfortunately incubates a nest of duck's eggs. The effect of this rush of population from the country to the city, from the farm to the factory, the shop and the store, has long been a subject of regret to the thoughtful among our agricultural writers and thinkers. But all considerations and arguments against this current of the times is met by the ever-present objection of the unprofitableness of practical farming.

For the benefit of young men who are balancing the question of leaving or abiding upon the farm, I have obtained a few facts which show what has been done, and what may yet be done, on the soil of old Massachusetts. It was with considerable reluctance,—a reluctance that was overcome only by the consideration that his success might encourage other young men to imitate his example,—that the gentleman of whom I am about to speak consented to the use of his name.

In the town of Framingham, Mass., twenty-three miles from Boston, on the Worcester railroad, there is a well cultivated farm of 150 acres of land, with about one thousand bearing fruit trees, a fine residence, a barn 100 feet in length, with a nice cellar under the whole, and other buildings to correspond, and every thing about them in fine order. The owner pays the highest income tax of any farmer in the town, which, by the way, is in one of the best agricultural districts in the State. He is fifty-three years old, active and vigorous, with an interesting family growing up and around him, and is withal highly respected by his fellow townsmen. This estate was not inherited; it was not acquired by speculation; it was not paid for from the profits of commerce, high salaries, or any lucky turn of the wheel of fortune. How, then, was it obtained?

Engages by the Month.

The owner, Mr. PETER DAVIS, began life without capital, and has never engaged in any other business than farming. At the age of sixteen he commenced for himself by an engagement for eight months, at seven dollars per month, and continued his work at various wages—but never exceeding ten dollars per month—till twenty years of age.

Leases a Farm.

At twenty years of age he leased 125 acres of his present homestead for the term of six years. Previous to his occupancy, the farm had been leased for twenty years, and had suffered the skinning process to which leased land in New England is almost invariably subjected. Some portions of it were badly "run out," others badly "run up" to bushes and other foul growth. Although he managed somewhat after the manner of leased farming, he believes it was in better condition at the end of the six years than at the beginning of the term.

Original Purchase.

At the expiration of this lease he bargained for the farm, and has now owned it twenty-seven years. The conditions of the purchase were $5000; one thousand paid down, and the balance in eight annual instalments of $500 each, with interest. In making this purchase he acted against the advice of several of his neighbors, who predicted that he would be unable to meet his payments with accruing interest money, and thus lose his entire investment. He believed, however, that, with health, he could pay for it, and the result has justified his faith in the profit of farming, even in New England. For some years he was obliged to borrow some money to meet his payments, but his industry and perseverance gave him a credit by which he was enabled to raise the necessary amount without trouble.

Amount of Hay raised, and Stock kept.

During the first year of his ownership, the production of the farm was so small, that in order to keep his stock of eight cows, two yoke of oxen and a horse, he was obliged to buy one hundred dollars worth of hay. The next year he bought ninety dollars worth. The third year he turned the tables, and sold hay to the amount of two hundred dollars, and has sold some every year since, although his stock has gradually increased from year to year, until he now keeps about twenty head of cattle, two horses, and ten hogs.

Mr. Davis now mows about forty acres, and harvests from sixty to seventy-five tons of hay, some ten of which are "meadow." He gener-

ally sells about twenty tons of good English hay;—last year at $1.85 per 100 lbs., when the sales amounted to over $800; and three years ago to $1050.

At the time I visited this farm, last fall, the large barn was well filled, and his stock all looked remarkably well. His cows were mostly Jersey and Ayrshire grades, with our native stock.

Improving a Meadow.

The reclamation of a meadow of some eight acres, was one of the first improvements which Mr. Davis attempted after making his purchase. At that time it produced about five loads, of some twelve hundred pounds each of hay per year. Being short of manure, he drained and plowed only two acres the first season. Eventually the whole was treated in the same manner. From an acre of this meadow, to which twenty ox-cart loads of compost had been applied the fall previous, 4400 lbs. of hay was harvested.

Composting Manure.

With Mr. Davis the shovel is an important farming tool, and he uses it a good deal. Every fall he covers his yards deeply with yellow loam or muck. This is plowed in August, and again in October, and carted out and spread. He intends to average twenty ox-cart loads for each cow or hog for top-dressing, and believes it pays. His materials are so situated that a good workman will put in about twenty loads per day, and get out about fifteen and spread it. Last year he carted two hundred loads of loam into his cow yard. On his land, most of which is of a clayey soil, loam, of itself, as a top-dressing, increases the growth of grass, but he believes that the increased value from composting pays for the extra labor.

Fattening Pork.

A part of the ample cellar under the barn is occupied by swine. Last year he fattened eleven hogs. Eight of these when dressed in the fall, weighed 2960 lbs., and were sold at 14½ cts. per lb., amounting to $429.20. They were but a little more than a year old. For the two previous years, he sold his pork at 20 cts. per lb. He fats and kills early in the fall. He does not prefer the largest breed of hogs, but thinks he gets more pounds of pork for the same food, and a better price for those of medium size, well fattened and sent to market early. He has found the raising of pork very profitable, besides affording a large amount of dressing for the farm. He thinks that at present prices of grain, it would pay to raise pork at ten cents.

Indian Corn.

Large fields of corn are also raised upon this farm. Last year there were ten acres planted, which yielded nine hundred bushels, or an average of fifty bushels of shelled corn per acre, besides quite a number of bushels of potatoes, which grew upon the same land. The stover from this corn Mr. Davis estimates will save one ton of hay per acre, or ten tons in all. The corn is all spent upon the farm.

Peach and Apple Orchards.

In place of the noble orchard of about one thousand fruit trees which now occupies a portion of the farm, there were a few "seedlings" and one grafted tree, at the date of his purchase. For several years a peach orchard which he planted yielded from three to four hundred bushels per year of this luscious fruit. In common with other peach orchards in this part of the country, this failed after bearing well for about five years.

Addition to the Farm.

About eight years ago he made an addition of twenty-five acres to his homestead, at a cost of $1300. Ten acres of this was mowing land and the remainder a bush hill, which he has converted into a good pasture. When Mr. Davis bought this farm, the buildings were worth but little. But as already intimated, he has rebuilt, and they are now quite valuable and very convenient.

The Secret of Success.

In answer to a question as to the secret of his success, Mr. Davis said that he did not know as he had any secret, unless it was the lesson which he learned soon after commencing business for himself, from the loss of a valuable cow by neglect to fill up a hole left on his premises. This impressed him with the importance of finishing at once every job that is undertaken, and of careful attention to every part of the work or business on hand.

I have no hesitation in saying that there are thousands of farms in New England which offer inducements and opportunities equal or superior to those which induced Mr. Davis to settle upon this place which he has so greatly improved and beautified. Manufacturing and trade, as they absorb capital and employ labor, furnish a ready market for the productions of our New England farms. And when the disastrous fluctuations which render trade and manufacturing so unreliable, are duly considered and better understood, it is to be hoped that the many examples of successful farming which are witnessed in New England will finally settle the question of the profitableness of farming in the affirmative, and that many young men will be led to imitate the example of Mr. Davis, which I have thus imperfectly sketched. W.

January, 1867.

—The Trustees of the Pennsylvania Agricultural College, have decided on the establishment of two experimental and model farms, of 100 acres each, one in the Eastern and one in the Western part of the State.

For the New England Farmer.

DESTRUCTION OF TREES AND SHRUBS.

Many years ago, at a time when I was confined, through the best part of every year, to an absorbing and laborious employment in the city, I, one day, weary of brick walls and flinty pavements, escaped from town, and, hastening to enjoy the wildness and beauty of the woods and fields, rode towards a lane, the very thought of which had always been refreshing to me. There I expected to be at once surrounded by the trees and shrubs which belonged there, such as gradually border a road in the country, when left to itself. What was my disappointment to find them all gone, and my delicious green lane reduced to a bare, vulgar, dusty, country road. The owner of the land on the two sides had been seized with a disease to which men of little taste are liable, the *mania for improvement*, and in a paroxysm of the malady, had ordered all the beautiful shrubbery and thriving young trees to be cut down, and the land between the road and the walls to be burnt over. Never, by a single operation, was so much beauty destroyed and so much ugliness and deformity left to take its place.

The pretty winding lane had been shaded from the sun in summer and sheltered from the cold winds at all seasons, and its thickets had thus become a resort of the birds, whose earliest notes might be heard there in the end of winter, and whose evening songs were sure to greet me there in the summer evening twilight. As I passed along that road, I loved to let my horse walk while I dwelt upon the thought, what a charming residence for summer, or for the whole year might be, perhaps may be, built on that lane. Since its desecration, I have never for a moment had a feeling which would suggest such a thought; I have avoided with a shudder what had long been a favorite path.

A very few years ago, a similar violation of the principles of good taste was committed, I hope thoughtlessly, on a road which was formerly the Boston and Worcester turnpike, in that portion of it which is in Brookline, nearest the edge of Newton. The natural, beautiful growth on both sides of the road has been destroyed, and a row of unprotected trees substituted. The trees are not bad in themselves, but how far less beautiful than the original denizens of the forest with their natural grace, whose place they have taken. No attempt has been made to supply the loss of the exquisite shrubbery. The person who suffered this outrage to be perpetrated was evidently one who ought to have known better. He has built a noble wall and planted these few trees between it and the road. He probably gave only general directions, and entrusted the execution of his *improvement* to some stupid barbarian, and he may be, at this moment, suffering as much as I suffer whenever I pass that way, from the loss and ruin he has occasioned.

A young friend of delicate taste and refined perception of natural beauty, tells me that such things are even now done, not many miles from Boston; and she gives me a case where the offender was,—not an individual misled by a false theory of improvement of his own property, but —a town officer, who ought to have been not the violator, but the guardian of public and of private rights, and one on whom an aggrieved lady might confidently rely for protection.

Outside my friend's fields, and between her fence and the public highway which ran along one side of her farm, was a space of one or two rods, planted by the hand of nature, with the usual shrubs and trees which grow wild in Middlesex. She valued this border as at once a screen from passers on the road, a protection from wind and sun, in her own walks and drives, and a graceful border to her land, a delicate fringe, of varying colors, to the homely green and browns of her meadows and cultivated lands. During a temporary absence, a surveyor of roads suffered, perhaps ordered, this precious hem to be torn and ripped away. The trees were cut down and the bushes grubbed up.

She knows not, and I know not, whether she has or has not a remedy by law for the injury she has suffered. In the nature of things, there is no remedy. Her beautiful border is gone; and it would take thirty years, with the best intentions and the most skilful management, to bring it back and make it what it was; and, in that time, youth and much of womanhood will have past, and the enjoyment she would have had from it, for all these years, will be absolutely lost.

A sense of my own loss from the vandalism I have described, my sympathy with a dear friend in what she has suffered, and my fear that others may be suffering or likely to suffer, in the same way, who have none to speak for them, have led me to trouble you, Messrs. Editors, with this communication. If you agree with me so far as to allow it to be published, I shall ask to be permitted to give some reasons, in a future paper, why the evils of which I have spoken should henceforth be guarded against.

G. B. E.

Boston, March, 1867.

For the New England Farmer.

BEST TIME TO APPLY MANURES.

The Secretary of the Irasburg, Vt., Farmers' Club, furnishes the following sketch of the discussion of this important subject at a late meeting of the Club.

Z. E. Jameson thought that the plan of applying manure as soon as convenient after it is made, was growing in favor with farmers, and that manure heaps are not desirable or profitable about the barns. Those who are partial to old manure will then have it, of all ages, in the soil. No great loss will be sus-

tained if manure is drawn out upon frozen ground, as we see some doing, or spread upon a thin body of snow, if the ground is level enough to prevent the dissolved juices from running away when the snow thaws. Water is very necessary to prepare manure for plant food, and when frost is coming out, the ground will absorb the dissolved manure very readily.

W. L. Jameson said, that what sounded well in theory, would not always prove best in practice. His farm, though quite level, was not level enough to prevent the juices of manure from running away with the melting snow while the ground is frozen. He had found that immediately after haying, is the best time to apply manure to grass ground as top dressing. He had practiced it several years. When he bought his farm it was bearing a fine wild grass of inferior quality; but scarcely enough coarse grass to winter one horse. Now all his upland produces good coarse hay, some of it growing nearly as high as his shoulders. He had never bought much manure, as he had plenty of muck, which composted in various ways proved to be of great benefit. One year he bought a barrel of lime, slacked it with salt water and mixed it with muck. This spread upon the grass increased it three fold, and its beneficial effects were obvious for six years. His soil is somewhat clayey and bakes quite hard in summer, but where the top dressing was applied it did not become so hard. Manure applied immediately after haying produced a much better result than that applied later in the season. It seemed to protect the grass roots from the scorching heat of the sun. He had tried top dressing on sandy soil with good results.

Mr. Colton had top dressed new land among the stumps, and believes it better to keep up grass ground in that way, as it is somewhat costly to plow and re-seed, as he sows four pounds clover and from eight to twelve quarts of timothy per acre. In applying manure to cultivated ground, would harrow or plow it in shallow. He does not favor very deep plowing, and does not believe manure is lost by leaching. Had often noticed the increase of grass on Mr. Jameson's farm where it was top dressed.

Mr. Church had experience with dry and sandy soil, and found it best to plow in manure. It lasted longer, and the neighbors remarked the improvement. If he was intending to top dress he would spread the manure about the time of the fall rains, and not in the dryest and hottest, nor in the winter season.

W. L. Locke, Jr., had plowed in manure on sod ground for corn, and at the next plowing he went about three inches deeper, thus bringing the manure again near the surface and making a rich seed bed upon which to sow grass seed and grain. He had top dressed when seeding to grass with good result.

Mr. Brewster would not spread manure in winter, but would draw it at that season, if more convenient, leaving a load in a place, but on no account should the manure lay in the yard through the summer. Upon plowed ground, that he intended to sow to grain and grass, he would spread the manure as soon as the frost was out so it would harrow well, as early sowing caused a better "catch" and growth; but for hoed crops would plow in a large quantity of green, coarse manure.

The Club voted to endorse the method of W. L. Jameson for keeping up the fertility of fields in grass; and Mr. Brewster's plan with grain and hoed crops.

DISOWNING LAMBS.

Dr. Randall, of the *Rural New Yorker*, gives the following summary of the means which are adopted by the leading sheep-breeders of New York and Vermont to make the ewe own her lamb:—

When a ewe disowns her lamb, Mr. Baker places them in a pen, two and a half feet by three; or if the ewe is very refractory, fastens her by a ring and staple to an upright stake—the strap being so short that she cannot turn round to butt her lamb. She is held for it to suck frequently, and if she continues refractory after it is able and tries to help itself, she is switched over the face and ears till she submits. Brown, Elithorp, Pitts and Sanford use the pen, and the switch "persuasive" if necessary,—Elithorp turning the ewe's head so she can see the lamb as it sucks. E. O. Clapp uses the pen, the stanchions, the switch, and sometimes frightens her by tying a dog in her sight, to arouse her maternal instincts. A. H. Clapp confines her head in stanchions, and prevents her stepping about with her hind feet, to get away from the lamb, by narrow bars—placed close on each side—but releases her and puts her alone with her lamb a short time each day; and he sometimes frightens her with a dog or some unusual object. Gregory uses a pen so narrow that the ewe cannot turn round, and places the lamb under her. Hammond uses a pen, separating the lamb from the ewe about half the time, and placing it where she can hear it bleat; Heyne, a pen about five feet square; Pottle, a small box or pen, preferring a dark one; Rich, Saxton and Wilcox, a small pen; Wright, a small box-stall, tying the ewe so she cannot turn round. It will be understood, of course, that *all* assist the lamb to suck *frequently*. Pitts thinks that early success depends upon this frequency.

We do not remember ever to have found the *switch* necessary; and not being very strong advocates of "corporal punishment" have never recommended its application to the recusant dam; but the above testimony in its favor is certainly very strong. The small pen, made dark if it can conveniently be done, and placed out of hearing of the flock, with *kind* treatment, has always sufficed in our experi-

ence. The sheep must be well fed to prevent a drying up of the milk—her uneasiness, &c., producing a strong tendency in that direction.

CONSOLATION FROM SCIENCE.

Who that has battled with the weeds of his cultivated fields, or seen his choicest grasses giving place to the Canada thistle, ox-eye daisy, &c., or reflected upon the probable annual cost of weeds to the farmers of the whole country, has not sometimes indulged in hard thoughts, if not in hard words, as he has seen how defiantly they withstand all his efforts for their extermination? By all such the following extract from an article in the *Country Gentleman*, on "Weeds," may be read with profit.

To have a correct view of the economy of weeds it is necessary to look back a little into the past. It is the commonly received opinion of the learned that all our soils have been formed by the continuous growth and decomposition of vegetable substances. These, in their countless variety, have been adapted to all situations, where their growth can be maintained. The rugged mountain, the oozy marsh, the barren road bank, and fertile plain, have each a vegetation adapted to clothe them with verdure, and prepare them for the sustenance of man. The fattening grasses that now clothe our unbroken prairies, were preceded by rank weeds.

Should any of our now fertile fields be left to the hand of nature, it might first produce daisies, rag weeds, or whatever the soil or neighborhood afforded. The growth of these would be a *shelter* for the seedling grasses, which, eventually becoming strong, would choke out the friends of their infancy and assume *complete* possession. The very cleanest fields of Maryland are those which have been for half a century abandoned from the plow. No doubt, after their last crop of corn or tobacco, they made a formidable display of weeds; but we find them covered with the prevailing "sedge grass," interspersed with Naphthalium, and here and there on the richest spots a feeble growth of "green grass."

Thus, when we consider the great mass of plants known as weeds, chiefly annuals or biennials, in their true character, instead of charging them with an annual *cost* of millions to the farmer, we shall find them to have been the humble agents in adding fertility to our soil—perhaps in making it all that it is.

—Dr. Randall advises against breeding from a black ewe, for the reason that though she might never have a black lamb, the color would be more likely to crop out in some of her descendants, than in those of a white ewe.

EXTRACTS AND REPLIES.

HUNGARIAN GRASS—CULTURE OF POTATOES.

A subscriber desires your opinion on the merits of Hungarian grass for soiling purposes. If favorable, please state in what soil it thrives best, how the ground should be prepared, when sown, &c.

Please also give in the FARMER what, in your view, is, on the whole, the best method of preparing the seed and planting potatoes, i. e. what size, large or small, or medium, cut or uncut; if cut, how many eyes to a piece, and how many pieces or whole potatoes in a hill? If planted in hills, how far apart? &c., &c.

I wish the readers also would give their experience. G. B.

Essex, Vt., March 9, 1867.

REMARKS.—Hungarian grass, when not grown too rank, makes an excellent fodder. Any corn land that will produce 45 or more bushels of corn per acre, will bring a good crop of Hungarian grass. Prepare it as land is usually prepared for barley or oats. The soil should be fine. Sow from the 25th of May to the 10th of June, about 12 to 13 quarts of seed per acre. We have no doubt but it is a very profitable crop. It is an "annual," however, and must be sowed every year.

Our practice in raising potatoes is to put them on new land if we can. Plow deep, ten or twelve inches, if the ground will permit; put the rows 3½ feet apart, and in squares, so as to cultivate both ways; manure in the hill, with the coarsest manure, on moist lands, and finer manure, on high and dry lands. If a portion of fine manure is spread and worked under before the furrows are marked out, so much the better. On the manure in the hill, throw a small handful of plaster of Paris.

Our seed potatoes are selected in the fall, when the crop is harvested, and are those which are considered too small for the table. Two of these are put in the hill, and if approaching the size of a hen's egg, it is cut and the two pieces used. We have planted the same variety, namely, the Riley, Dover, or "*Irish Cup*," which latter is its true name, and from the same sized seed, for seventeen years in succession, and cannot discover any diminution in size or flavor yet.

SCRATCHES ON HORSES.

A few weeks since we replied at some length to the inquiry of "R. P. T.," of Pittsburg, N. H., for a cure of this disease. Since then we have received communications from five gentlemen upon the subject, to each of whom we tender our thanks for their attention.

Mr. Hiram French, of Eaton, C. E., writes that after having tried our prescription without effecting a cure, he obtained from an experienced dealer in horses the following remedy: A decoction of tamarack bark is made by boiling a bushel of the bark in a kettle of water thoroughly—strain off the liquid—add more water—boil again—then strain as before—remove the bark, and boil the whole down to one pailful. Give the horse one pint of this twice a day by soaking his oats in it.

This purifies the blood and creates an appetite. After thoroughly washing with strong soap suds, and rubbing dry, apply, night and morning, an ointment composed of half a pint of linseed oil, two table spoonfuls of fine salt, same of sulphur, same of saltpetre, and one ounce of turpentine, well mixed. Having cured a valuable horse of his own, in this way, he confidently recommends it to others.

"W. H. J.," of Winchester, N. H., suggests, as the disease is caused by impurity of blood, that, in addition to good feed and careful usage, a spoonful of sulphur should be administered once a week, and then if, on trial, our remedy does not cure, apply every morning, after washing clean, an ointment composed of a tea-cupful of lard, with as much camphor gum as can be dissolved therein, simmered together with a little rosin.

"J. C. M.," of Lancaster, N. H., is now using a good horse, that some six years ago had the scratches badly, which he cured by giving him sulphur, cleaning the issues on his legs, and roweling in a bit of onion. On his recommendation others have effected cures by the same means.

"B. F. B.," of Fletcher, Vt., gives the following, which he knows to be a sure cure: Wash perfectly clean with castile soap and warm water, then apply, while warm, an ointment of gunpowder mixed with sweet cream or fresh butter, to the consistency of thin paste.

"C.," of Groton, N. H., also recommends the gunpowder, ground fine, and mixed with lard. Rub thoroughly into the cracks.

IS IT ADVISABLE FOR A YOUNG FARMER TO SEEK FORTUNE AT THE MINES?

When a boy I thought that an Editor knew everything, and I still think that they are better qualified to answer questions than most people, so I venture to ask the following: Do you think it advisable for a young man to seek his fortune at the mines, and is there any prospect of success? If so, would you advise one to try his fortune in California, Colorado or Georgia? I am a young farmer, and do not like farming unless I can possess one of my own, and there is no prospect of that very soon if I stay at home. If you think it advisable to try my luck in any of the abovenamed places, please state what it would cost to go there, and oblige a reader of the FARMER. ALBERT.

REMARKS.—Stick to the farm. Read the letter dated at Georgetown, Va., and also the statements of a correspondent, which shows how one poor boy in Massachusetts obtained a good farm.

Why not work on a farm for wages several years, learning all the time how to manage one, while your money is accumulating to purchase with? This is better than young men do in stores where they frequently get no wages, and are obliged to pay their board! A relative of ours laid up $3000 from wages as a journeyman farmer, before he purchased the Connecticut River farm on which he now lives.

There is not one chance in one hundred that you will succeed if you go to mining; and if you should, you would probably ruin your health in the effort. The employment, as it is generally conducted, is debasing to both body and soul. Do not make haste to be rich. Stick to the farm, and health and honors will stick by you.

"A POOR MAN, ON A POOR FARM."

What kind of farming will profitably succeed on a pine plain farm, in western Massachusetts, where the soil is sandy, and don't yield a good crop? Can any one advise a poor man, on a poor farm, what to do? W. C. B.

REMARKS.—This is just what we all wish to know. Who will tell us how to get good crops from sandy lands without the aid of much capital? If some one could find out this secret, and get a patent for it, wouldn't he make a pile. Plenty of our correspondents have been through the process and know how to handle the pen as well as the plow; we hope they will inform their brother, "W. C. B.," how they did it. We should not be surprised if "W. C. B." could give us some valuable hints on the subject, himself. It is just the question that a thousand New England farmers want answered.

HENS EATING THEIR EGGS.

My hens have got in the habit of eating their eggs as fast as they lay them. Will you or some of your correspondents inform me through the columns of the FARMER, of a remedy and speedy cure? A SUBSCRIBER.

Hadley, Mass., March, 1867.

REMARKS.—Give the hens two or three kinds of grain during the week, and a dish of warm mashed potates and cob-meal, each day, and mix this with some fatty substances, such as scraps, or grease from the kitchen. Furnish them a place where they can be in the sun when it shines, and where they can come to the ground and get plenty of dry ashes to wallow in. Let them run at large a portion of the day, and when shut up have scrupulously clean quarters. They ought to have a little fresh meat or fish occasionally, and always gravel, oyster and clam shells, pounded, where they can be obtained readily. Dry bones in the stove oven and break them into small pieces for them. They will act as though they were hungry when you put them before them.

LETTER FROM VIRGINIA.

MR. EDITOR:—It seems strange to me that Northern people do not turn their attention more this way. There is much land in Gloucester and Matthews County, probably as good as the Connecticut River bottoms, and as healthy. The lands are low, but not sufficient to overflow. Oysters, fish, crabs, &c., are plenty in season. This land is excellent for apples, pears, peaches, figs, &c., with navigation to the door.

I would be glad to join an association of farmers and mechanics to form a settlement for a town or fruit farms, at an excellent location, high and dry, where a ship of the line could anchor within a few yards of the shore, in a good harbor. Facilities for taking fruit or produce to market are unsurpassed, as steamers run daily to Baltimore, Philadelphia, New York or Boston. The asking price,

say for six or eight hundred acres, is $30 per acre, and this is in the heart of the oyster region, where $300,000 is expended annually, I judge, in that business alone.

I was in North Carolina, a few days since, in Carrituck County, and saw very large vines of the Scuppernong grape, which were said to produce 30 bushels to a vine, some even more. That variety of grape would undoubtedly flourish splendidly on this land. I drank wine (white,) made from this grape, which would be hard to beat. It was very delicious, although new. I shall be in Charlestown, Jefferson Co., West Virginia, in a few days. If any wish to communicate with me on the matter above mentioned, I shall be glad to hear from them. SAMUEL CLARKE.

Yorktown, Va., March, 1867.

REMARKS.—The existence of slavery has undoubtedly kept Northern people from examining and settling upon the land of which our correspondent speaks. Having visited the localities which he describes, several times, we came to the conclusion that there are few if any places which offer so many advantages to young and enterprising farmers, as in the region of Yorktown. The climate is healthful, the land excellent, and the whole world is open for a market. It is near the mouth of two splendid rivers, the Potomac and James, both pouring their vast volume of water into the magnificent Chesapeake Bay. It is little more than 24 hours' distance from New York and Boston, and on the very threshold of the Atlantic Ocean. Go and see it, young men, before starting for the mines of Idaho or any other place.

RAISING PLANTS IN PASTEBOARD BOXES—FERTILIZER FOR TOP-DRESSING—STANCHIONS.

I think of having a few early vines this spring. My plan is to plant my seeds in pasteboard boxes large enough to contain one hill each. When the ground is warm enough, I shall set these boxes in the ground, and I think they will decompose and offer little or no resistance to the roots. I have tried to transplant vines, but with no success. Do you think I shall have good success with the pasteboard boxes? What is the best kind of fertilizer to spread broadcast upon grass land, excepting stable manure?

I saw, a short time since, in your paper, a plan for cattle stanchions. Who can be so barbarous as to oblige a cow to lie with her head in the manger, when she would, if left to do as she chose, lie down with her head against her side? I have seen a good many plans for securing cattle, but for their comfort I prefer the chain, well known as the "cow-tie." C. H. W.

Wiswasset, March 11, 1867.

REMARKS.—You will probably succeed well with the boxes. To make plants grow well, and get them early and strong, a little *bottom* heat is necessary. This may be supplied by a good bed of coarse horse manure under them.

Superphosphate of lime has done admirably as a top-dressing on grass lands.

SIXTEEN CROPS OF WHEAT WITHOUT A FAILURE.

The high price of flour will induce many farmers to sow wheat this spring. Having cultivated this crop for the last 16 years, I may be in possession of some information in relation to growing wheat, that may be of some use to farmers at large.

Much depends on the right soil, and much on the manner of cultivation. I would not, therefore, advise an indiscriminate sowing; for if that is done there will be a good many failures. With me, the best soil for wheat is a loamy ridge, where there is a free current of air, or even where the winds have full play. The land should be in good condition, but not from fresh manure; if any is used it should be well rotted, old manure, as new will induce a large growth of straw at the expense of the berry, and probably result in mildew.

I prepare my wheat lands mostly in the fall by plowing once after corn or potatoes. Wheat does best where the surface, for two or three inches deep, is made fine and loose with the harrow. As early in the spring as the land is dry enough, I plow well and sow the grain, harrow, and smooth off with a brush. The seed should be well washed and soaked in brine for two hours, then drained off and dried with lime to destroy the smut. About one and a half bushels should be sowed to the acre. As soon as it comes up, sow one bushel of plaster to the acre. The essentials of success in raising wheat are, the proper preparation of the ground in the fall; early sowing; an early variety, if possible; soil rich, but not with new and unfermented manure, so that the crop may be hastened to maturity, and avoid all the hot weather possible. I have made sixteen crops of wheat on the farm on which I now live, without a failure, though at some times it has been better than others. H.

Epping, N. H, March, 1867.

REMARKS.—Such valuable communications as the above we dislike to print with a mere initial. The writer of an article which informs us how sixteen successive crops of wheat have been raised in one of the older States of New England, may shield himself from the respect and gratitude of the public, but has he a right to withhold from his wife and children the honor of his good name? In making this remark we have in mind the fact that other wheat growers who have responded to Mr. Parmenter, have regarded his request to do so with their full names, and residences.

APPLE TREES ON THE ROADSIDE.

Last fall I prepared my ground for planting some apple trees this spring; the lot is bounded on one side by the highway, and one of the rows runs parallel with it.

Now, up here in New Hampshire, the consumer appears to have an idea that the producer has few rights which he is bound to respect, and so it follows that those trees which are situated within cosy clubbing distance of the road are of the least profit to the owner. Every urchin, or boy of larger growth, who passes by, seems intuitively to select the tree which bears the choicest fruit, and missiles of every description are hurled at its devoted head. I have an old apple tree in my orchard which stands near the road, the fruit is early and toothsome, and I verily believe that if the stones which have been cast at that tree by passers by, for the last ten years, should be piled up in a solid pile, they would make a very respectable Egyptian pyramid; when mowing in the vicinity of that tree I try to think of the last Sunday's sermon, of "Good will toward men and boys," but it's of no use, scythes were not made to cut cobbles.

If I can raise good fruit, I take pride in my proving it by *giving* specimens to those who may *ask*, but it does go against the grain to be called a stingy old curmudgeon because you tell one of this

class of highwaymen that you object to his clubbing your trees.

Now, as I do not want to pander to the taste of thieves, I wish to find out if there is a variety of apple which is not inviting to the taste, but not unprofitable, a cider apple for instance, which I can with safety set out in the row next to the road?

We have stringent laws for the protection of the sheep raiser, laws to protect the small, and game birds, and fish; why not have one to protect the fruit-raiser? He needs it if any one. It is not too late to agitate, so will you and your contributors show this matter up, and perhaps we may get a law some time that will be stringent enough to protect the fruit-raiser. WINTER HILL.

Nashua, N. H., March, 1867.

REMARKS.—Set young trees, and graft them with the best cider apple in your neighborhood. The Winter Green Sweet is one of the finest apples for baking, is scacely fit to use until February or March, and will keep until June. When growing, and until the time of gathering, it is about as "hard as a brick," and looks like a ball of green paint. A boy would eat the tree about as soon as the apple. In February, it begins to turn yellow, assumes a very rich golden color, and is sweet and delicious when cooked. It is a roundish-flat apple of medium size, and may be obtained of Deacon Tenney, of Chester, N. H.

A NEW APPLE ORCHARD.

I wish to set out an orchard of two hundred apple trees, this spring. Will you please inform me, through your paper, what kinds bear best in this State. Would you prefer to set small trees grown here, rather than large New York State trees?

Greenfield, Mass., March 11, 1867.

A SUBSCRIBER.

REMARKS.—You had better ascertain what varieties are hardy and produce best in your particular locality; these will be more likely to prove profitable than trees would brought from other distant places. The Baldwin is still a favorite; so are the Roxbury Russet, the Hunt Russet, Rhode Island Greening, the River, Williams' Early Red, Morrison's Red, Red Russet, Tolman's Sweeting, &c. Avoid the common mistake of setting too many varieties.

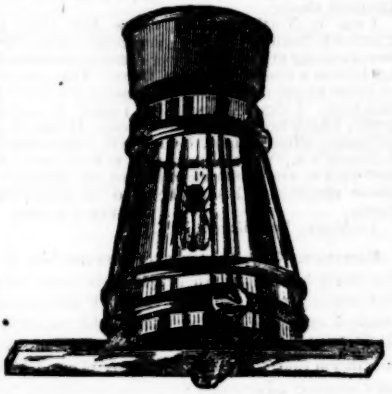
THE WAY TO RAISE THE CALVES.

Do not let the calf go the cow more than twice to suck; keep it entirely away from her until it is two weeks old, and then you may turn it out with her and be sure it will not trouble her. Feed the calf with the cow's milk as it is milked, until you wish to use the milk for butter, then skim the milk when it is sweet, warm it and give it to the calf. After the calf is four weeks old give it your sour milk or whey, and a little scalded meal, not more than a gill at a time to commence with. The calf will follow you to the pasture and back again at night as readily as your dog. A FARMER.

Royalston, Mass., March 19, 1867.

—Judge Robertson, of Louisiana, has recently made an elaborate report on the resources of that State, in which he expresses the conviction that her soil and climate are well adapted to the growth of wheat.

A CONVENIENT AND CHEAP MICROSCOPE.



The engraving shows a complete microscope, full size and exact form, constructed and patented by O. N. Chase, No. 9 Lagrange St., Boston, Mass. It is a handy instrument, useful in aiding the detection of counterfeits, in discovering the texture and character of fabrics, and in exploring the wonders of nature. The microscrope is one of the most useful instruments. It has been extensively employed of late years in detecting adulterations in food and other substances which could not be easily discovered by chemical analysis. To the farmer it is useful in ascertaining the quality of seed bought, and in studying the structure and habits of insects injurious to vegetation. To the merchant and business man it is an aid in testing the genuineness of bank notes, the quality of cloths, etc., and to all it is a source of elevating and instructive amusement.

This little instrument, although perfect in every part, is retailed at the low price of one dollar. See advertisement on another page.

THE WESTERN WHEAT CROP.—A writer in the St. Louis *Democrat* makes some observations on the coming wheat crop of St. Louis county which, as the weather has been similar, will probably apply throughout the West. He says:—

"Wheat was sown throughout the county to a larger extent than in any previous year. In the moist and warm ground it germinated and sprouted within four or five days, and continued growing until the frosts of the latter part of November, when it showed a robust stand, such as has not been seen for many a fall. The thick coat of snow (also grumbled at as a mat-

ter of course) now covering the ground is another blessing. That snow shelters our wheat as under a universal hot-house, and a good one, too, keeping the plant alive, but not allowing its growth, which is its best possible condition."

BLACK KNOT.

We have one cherry tree in our garden, which was a very small, unthrifty looking one when we come hither four years ago. It then had a few black knots on it, which I cut off, but I did no more, thinking it would die. Last winter I concluded to experiment, and in February I had the house slops poured around the roots, and continued till the buds started. When it blossomed it was a perfect mass of petals, and most beautiful to behold. It was the first time it had blossomed full since we owned it. It grew very fast, looked thrifty, and I thought I should have a good crop, till one day I thought I saw a large green worm on one of the lower limbs, but on closer examination, found the outside bark had burst, and what I supposed the worm was the bright green inside bark. I called for my husband to look at it, and we found several of the limbs burst in the same way, with no sign of bug or worm, or insect of any kind about the tree. The leaves and fruit were beginning to fall off, and we concluded it had been over-stimulated. My husband took his knife and scarred the bark of the body of the tree from the lower limbs to the roots, and before we left, it had split open an eighth of an inch, and the gash is fully half an inch wide, well barked over. The bursts which I have just cut off, in the form of black knot, have injured the tree some, but I hope by watching it closely and taking good care of it to have a nice tree of it yet.—*Mrs. E. C. McCloughny, Deposit, N. Y., in Tribune.*

HORSES' FEET REQUIRE MOISTURE.—Nine-tenths of the diseases which happen to the hoofs and ankles of the horse are occasioned by standing on the dry, plank floors of the stable. Many persons seem to think, from the way they keep their horses, that the foot of the horse was never made for moisture, and that, if possible, it would be beneficial if they had cow-hide boots to put on every time they went out. Nature designed the foot for moist ground—the earth of the woods and valleys; at the same time that a covering was given to protect it from stones and stumps.—*Ohio Farmer.*

—Dr. Smith said at a late meeting of the New York Farmers' Club, that on the banks of the Nile there are multitudes of towers some ten feet high, on which are placed doves' houses, solely for the manure which is gathered and used for melon growing—the finest in the world being raised by this means.

FARMERS' GARDENS---No. III.

Proper Soil.

WHEN the best *location* that circumstances will permit, has been secured, the great step will be to get such a soil as will best suit a majority of the plants we wish to cultivate. It is a mistake to suppose that some special soil is indispensable to success. There is probably no farm in the country, that does not afford a spot near its buildings, which, by skilful management, may be made to produce all the varieties of fruits and vegetables that are adapted to the climate. But there is a diversity in them, and if we do not find such as we desire, prepared by nature for our use, we must do it by art. Soils perform at least three grand functions in reference to vegetation. Prof. Johnston says they "serve as a basis in which plants may fix their roots and sustain themselves in their erect position—they supply food to vegetables at every period of their growth—and they are the medium in which many chemical changes take place, that are essential to a right preparation of the various kinds of food which the soil is destined to yield to the growing plant."

The character of the soil, by which we mean its capacity to afford a habitation to the plant appropriate to it, and at the same time to furnish the required aliment, is a matter, as all gardeners must see, of the first importance. It should be such as to afford sufficient moisture to the roots and to admit the air to penetrate it freely. The soil consists of decayed vegetable matter, sometimes mixed with particles of rock reduced to fine pieces by the action of the atmosphere and of water, and sometimes by the roots of plants. It is unnecessary to describe the different kinds of soils in regard to adaptation to supplying moisture.

Second. It should afford a supply of carbonic acid. This is furnished by the decay of vegetable matter, or by absorption from the atmosphere. This faculty of absorption is assisted by mixing with charcoal, muck, or other

matters having great absorbing power. Charcoal consists chiefly of carbon, and it has been found that plants will prove more luxuriant in soils containing a large proportion of carbonaceous matter, if well supplied with water, than in any other soil. Charcoal is not only a medium of absorption, but when water is present, it is decomposed, and its oxygen, combining with the carbon of charcoal, carbonic acid is furnished to the vessels of the plant.

Third. The soil should be capable of furnishing a supply of ammonia to the roots. This is also much assisted by the presence of gypsum or charcoal, which absorb it from the atmosphere. The usual mode of supplying it is by the addition of animal matter from the stable. Ammonia imparts its nitrogen to the plant, and it is to this that much of the nutritive value of the cereal grains and many esculent vegetables is due.

Fourth. It should contain those mineral ingredients which are necessary to the growth of plants. These, if wanting, must be supplied. The usual mode of doing this is by the mixture of other soils, as will be presently stated. This is also advantageously resorted to when the soil is too little or too much retentive of moisture, in consequence of being too loose or sandy, or calcareous, or too compact and stiff. This is called *tempering the soil.* When a soil is too loose and porous, or too stiff, the mixture of the opposite kind in just proportions will bring it to a more suitable condition. In this way a body is given to those lands that are too porous, and those which are too heavy and tenacious are made more light and loose. This process brings no nutriment to the plant directly, but only mediately, by attaining a retentive power in the right degree, and thus furnishing nutriment by a proper supply of water; and it also acts favorably on the health and quality of the plants.

A decidedly *gravelly* or *sandy* soil is unsuitable for garden purposes. So is a *heavy, clay* soil; such a soil would be wet in its natural state, and a wet soil is a *cold* one. But all these may be so altered and attempered, by drainage and combinations of materials, as to make such a *sandy loam* as will meet all the wants of common plants. Moist, heavy soils, that rest upon clayey subsoils, are better adapted to pasturage, mowing fields and the production of trees, and can only be made suitable for a vegetable garden by thorough draining, and then by trenching or deep plowing, and the intermixture of sand and muck. Without these helps, such land is too wet in rainy seasons, and is liable to become hard upon the surface during dry seasons, and in either case is unfavorable for the free growth of plants. But "by the removal of the water, the physical properties of the soil are in a remarkable degree improved. Dry clay can be easily reduced to a fine powder, but it naturally, and of its own accord, runs together when water is poured upon it. So it is with clays in the field. When wet, they are close, compact, and adhesive, and exclude the air from the roots of the growing plant. But remove the water and they gradually contract, crack in every direction, become open, friable, and mellow, more easily and cheaply worked, and pervious to the air in every direction." Thorough drainage, then, and the intermixture of sand and coarse and warming dressings from the horse stalls will bring a heavy soil into one upon which any plants will grow.

There are many farms made up entirely of sandy plain lands, upon which there is no soil of a different character. When such a soil is highly cultivated it will bring certain early vegetables to perfection, but fails to mature crops that require a longer growth. It may be amended, however, by the application and complete mixture of clay and muck. These should be hauled upon it in the autumn or winter, so that frosts and rains may pulverize and sweeten them, and then be thoroughly plowed and otherwise mingled with the sandy soil. Under such a practice, and with suitable manuring, this forms a *sandy loam,* which is the best soil for all garden purposes. But it may become necessary to drain even a sandy soil. If springs rise to the surface, as they frequently do, it must be drained. On many soils water is obtained in the wells by digging only eight or ten feet, because the sand rests upon a hard or clayey bottom. In such cases, draining is indispensable to success. The action of manure on a light, sandy soil, is to increase its cohesibility, its capacity for absorbing and retaining moisture, and to render it more compressible. Applied in sufficient quantity, it communicates an unctuous or pasty condition, and renders it less likely to be injuriously affected by the sudden atmospheric alternations of wet and dry. It also constitutes a better medium for the roots of

vegetables, which, in a light and excessively porous soil, do not take hold with sufficient firmness.

RULES FOR BUYING WOOL.

At a union convention of the Michigan Wool Growers' Association, Wool Buyers and farmers generally, the following rules for preparing wool for market were adopted:—

1st. Sheep should not be allowed access to the straw-stack, especially of barley or bearded wheat.

2d. All sheep, except perhaps bucks, should be well washed, if practicable, in a running stream, and as early in the season as the weather will permit.

3d. Sheep should be shorn, weather and other circumstances permitting, within six to ten days after washing.

4th. At the time of shearing, the fleeces should be carefully rolled up as snugly as practicable, without being too tightly pressed, wound with light colored strong twine, put twice each way around the fleece, carefully excluding all dead wool and unwashed tags.

In place of propositions to discount one-half on unwashed rams' fleeces, and one-third on other unwashed wool, which were rejected, the following was agreed to:—

Reasonable deduction should be made on unwashed or otherwise unmerchantable condition—this deduction to be determined, however, according to the quality and condition in each case, and not by any arbitrary rule of deduction to be applied indiscriminately to all cases.

In the course of the discussion upon the adoption of the above, Mr. Stuart of Kalamazoo said he thought the rule deducting one-third on bucks' fleeces, simply because they *are* bucks' fleeces, was arbitrary and unjust. He had a mixture of buck's and ewe's fleeces, and if any wool-grower or buyer could distinguish one from the other, he would give him the whole crop.

This Wool Growers' Association elected the following officers for the year:—

President, Hon. C. E. Stuart, Kalamazoo; Vice President, Sanford Howard, Lansing; Treasurer, W. G. Beckwith, Cassopolis; Secretary, W. J. Baxter, Hillsdale; Ex. Com., C. W. Green, J. R. Hendryx, L. S. Wood, Charles Rich, N. Pugsley.

IRRIGATION.—A correspondent in West Townshend, Vt., gives us some particulars of the success of Mr. J. H. Kimball, in the irrigation of about three acres of a gravelly and sandy soil, which was previously almost too poor to grow weeds. A tannery which stood on the stream from which the water was taken may have added something to its manurial value. Last season, which was the second or third of the irrigation, five tons of hay, fifty bushels of corn and seventeen of beans were harvested as field crops, besides seventeen bushels of turnips and a liberal supply of vegetables, which were grown on a portion of the land occupied as a garden.

EXTRACTS AND REPLIES.

CHEMISTRY AND FARMING.

I have heard that a thorough knowledge of chemistry is important to successful farming. Please to state through the NEW ENGLAND FARMER the reasons why it is so. Most of the farmers I ever saw knew little or nothing about chemistry. How much will books sufficient to obtain a fair knowledge of it, cost? ROBERT.

Easton, March, 1867.

REMARKS.—There can be no doubt, we think, that a thorough knowledge of chemistry is important to successful farming. But that it is absolutely necessary, we do not believe. There are thousands of excellent farmers who have no *exact* knowledge of chemistry—but still would find a "thorough" knowledge of that science important to them in their farming operations. Indeed, a very large majority of all farmers have very little knowledge of chemistry, and yet they succeed well and honor the calling. Some knowledge of chemistry would not only prove profitable to the farmer in a money point of view, but it would become a source of pleasure to him, and kindle in his mind a still greater desire to understand better the wonderful things that surround him in all his labors.

The best book for you is "Elements of Agricultural Chemistry and Geology," by Prof. J. F. W. Johnston. Costs $1.50.

CHANGING SEED—SALT FOR WHEAT.

Having promised to write about the cultivation of wheat, and the importance of changing seed, I must say, in the first place, that wheat is of all grain the most valuable. It is a very hardy plant, sustaining alike without injury the frosts of winter and the heats of summer. It delights most in a stiff, mellow, well pulverized soil, and very successfully follows beans, clover, peas, vetches or corn. On very light soils it is not profitable. Nor does it succeed well after potatoes, because this root is exhausting to the soil and renders it light and porous. When this succession is adopted, a large quantity of manure should be used to the potatoes.

The smut, which often proves fatal to wheat and other grain crops, appears to be occasioned by the peculiar state of the seed, and in England various saline, alkaline and other steeps are used to remove this infection. When, however, it becomes very much subject to this disease, it is attributed to sowing one kind of seed upon the same quality of land too long. Therefore English farmers have so much faith in the beneficial effects of a change of seed, that they sometimes will go a great distance for that which is fresh. They are also very particular to have seed wheat clean of all foul seed, &c. They generally make it wet with old chamber-lye, and then dry with quick lime.

I adopted the same mode here, but sowed one kind of wheat for seven or eight years. I thus got considerable smut among it, and it also deteriorated considerably. My straw was good, ears long,

but the berry had become rather smaller than it was when I first bought the seed. I did not like to part with the wheat, as it made excellent flour, and I did not know where to get any of the same sort. I therefore tried another mode of preparing my seed. Procuring a sieve coarse enough to let the small seeds and other refuse matter through, I get it thoroughly clean. Then wet it with water, and add to four bushels of wheat one bushel of salt, and mix them well together. Let it stand for two days before sowing. When ready to sow, I mix in ashes until the wheat will separate freely. This course I have pursued for the last two years, and have not seen any sign of smut, weevil or worm This leads me to think that salt is beneficial to the wheat as well as to the land. Last year I had some as handsome wheat as any one could wish for. I think if we would sow from one and a half to two bushels of salt to the acre, as we might easily do when sowing the seed, it would greatly benefit the soil. Wheat should be at once cut on the appearance of blight; as fields thus harvested will often produce a fair crop, which, if left to stand, would amount of little. E. HEBB.

Jeffersonville, Vt., March 22, 1867.

PRICE OF MILK.

As the time is now near at hand when farmers who produce milk for the Boston market, will engage their milk for the coming six months, it becomes a matter of interest to ascertain what price we are likely to receive for it. We all very well know that during the past few years the value of labor, hay, grain, pasturage, stock, tools, rate of taxation, and every thing connected with the production of milk, have greatly increased. This renders it necessary that we should obtain a fair living price for what we have to sell.

Heretofore, the producer has had very little voice in fixing the price at which he has sold his milk. The milkmen combine together, and say what they will pay, thus kindly saving us any trouble whatever in the matter, although we feel that thus far they have obtained our milk at far less than the actual cost of producing it. So long as we continue to go on in this way, so long will milk-raising continue to be a losing business. Why should we not have annually a Milk-raisers' Convention, with delegates from each town, upon the various milk routes leading into Boston, and establish a fair scale of prices, varying according to the distance from the city? Certainly it does seem as if some measures should be taken to bring about a different state of affairs. W.

Lancaster, Mass., March 22, 1867.

REMARKS.—We publish the above contrary to our rule which requires correspondents to give us their names, not to be published against their will, but as a guarantee of the good faith of the writer. The remarks of "W." upon another subject, we must decline to publish until the above rule is complied with.

FANEUIL HALL MARKET.

Is it proper to call the long stone Market "Faneuil Hall Market," or "Quincy Market," and by which name it is called in the city Records? As there is a difference of opinion upon the subject in our village, I thought I would like to know the facts in the case. P. B. H.

North Bridgewater, Mass., March 23, 1867.

REMARKS.—In 1740, Peter Faneuil, a wealthy citizen of Boston, offered to erect a suitable building for a market, and give it to the city. The building, when erected, contained a town hall in addition to the original proposition of a market. In 1824, more room being required for market purposes, leave was granted to extend Faneuil Hall Market. In this movement Josiah Quincy, then Mayor of the city, took an active part. Hence the "long market," as it is sometimes called. This building, also, in addition to the stalls on the ground floor, contained a spacious upper floor. The occupants of this story of the new building, from respect to the public spirited mayor, hung out their "shingles" with the inscription "Quincy Hall," in large letters. Hence, the confusion of names. The official and proper designation of the market, however, is Faneuil Hall and not Quincy. When the new building was first erected, there were not occupants enough for the whole, and the stalls under Faneuil Hall were vacated, and leased for other purposes. A few years ago, when the *long* market came to be *too short* for the increasing business, the original Faneuil was refitted, and is now occupied as a market according to the intention of its founder. Mr. Charles B. Rice, Superintendent of the market, informs us that the stalls in the original building are distinguished in his official reports as the "New" Faneuil Hall Market.

WATER CRESS.

Enclosed I send you a root that I call water cress. Can you inform me through the FARMER if I am right, and is it sold in Boston Market?

A SUBSCRIBER.

New Bedford, Mass., March 5, 1867.

REMARKS.—The plant sent is much smaller and more delicate than the water cress. In his excellent work, "Vegetables of America," Mr. Burr gives the following description of the water cress—*Sisymbrium nasturtium. Nasturtium officinale.*

"When in blossom, the plant is about two feet in height, or length; the leaves are winged, with five or six pairs of rounded leaflets, and, in deep water, are often immersed, or float upon the surface; the flowers are small, white, four-petaled, and terminate the stalks in loose spikes; the seeds are very small, reddish-brown, and retain their powers of germination five years. Nearly a hundred and twenty thousand are contained in an ounce."

If our friend will give us his full address we will send him a sample of the water cress sold in the market, and quoted in our report.

WHEAT IN NEW ENGLAND.

Several encouraging articles upon wheat-raising have appeared in the FARMER the past few weeks. That from Isaac W. Hutchinson, Esq., of Templeton, Mass., is worthy of special notice. Truthfully he says, "wheat ought to be raised by every farmer;" "that most of us can produce our own flour," &c. He says, "I seldom fail to raise less than 20 bushels to the acre and have raised 35."

This has been my urgent, persistent doctrine to the farmers, for the past twenty years—I yet hope and expect to see the wheat fever pass through New England, as the fire sweeps the Western prairies.

It is an idle, sluggish timidity, (excuse the remark,) that keeps the farmer from doing this first special duty to himself and his family. Why not depend upon the West for all his corn and small

grains? Wheat is a hundred times more valuable than all other small grains in the aggregate. It is a crop that offers a double advantage over any other grain, as it may be sown either in the spring or fall. One or the other is almost *sure*—perhaps both. With early sowing, to the depth of three inches, there is more certainty of its being well rooted and not affected by frost, as a winter grain. The best flour comes from the winter wheat. Four bushels is equal to a barrel of flour to the farmer, netting the comfortable little sum of $4.50 to $5.00 a bushel when flour is $16 to $18 per barrel; that being the price I pay for best quality.

It is sincerely to be hoped that your correspondent, Mr. Hutchinson, being fairly in the field, will be unceasing in his labors upon this vital subject. It is the right source for information. His communication is practical, sound, and of the highest value to every man who owns a farm.

The States of Ohio, Illinois and Pennsylvania have been large buyers of wheat, this season, owing to short crops. So it may occasionally be with Eastern farmers. We do not always succeed with any crop.

Why do not the wheat raisers tell their experience, as Mr. H. has done? It would encourage many a brother farmer to go and do likewise.

Brooklyn, L. I., March, 1867. H. Poor.

CANKER WORM PREVENTIVE.

Last year a person came along wishing to sell a preventive for canker worms. It was in the form of a liquid, which was to be put into a hole bored into the sap wood, and plugged up. It would infuse itself into the foliage and the worms would not eat it. As no one would buy, he made the application to two trees of my neighbor's. Those escaped the ravages, while the other trees were stripped. I would like to procure some of it.

Stratham, N. H., March 25, 1867. S. D.

Remarks.—The idea of impregnating the sap of trees with sulphur, calomel, or other offensive or deadly matter, to protect the foliage from insects, is a very old one; and statements of the success of such doctoring, occasionally go the rounds of the papers. As both calomel and sulphur are insoluble in water, we suppose they will prove so in the sap of the fruit trees to which they are applied. But if two trees have been protected by the travelling peddler's liquid, we advise him to ride the circuit again, or let "S. D." know where he can obtain a bottle of his preventive.

LARGE CROP OF ONIONS.

I observed in your paper of January 5th, a statement that Mr. G. O. Gill, of West Medway, had raised seven bushels of onions upon two square rods of ground. I have myself done much better than this; having raised from a piece of land measuring 58 by 26 feet, a little more than five and one-half square rods, thirty-two bushels of onions, or at the rate of more than 900 bushels per acre.

Lyman Hewins.

Sharon, Mass., March 19, 1867.

FLOUR OF BONE—SHEEP MANURE.

Last season I purchased 90 pounds of the bone flour. Applied it in the hill when planting corn, by using flour of bone in one row and superphosphate in the next row, and so on. The yield from the rows with the superphosphate was 50 per cent. greater than from those with the flour of bone—the field being manured and otherwise managed the same in all respects.

Will some of our old experienced sheep farmers give us, in the Farmer, the best method of treating sheep manure from the first move in the barn to the last in the ground. Sometimes I have forked mine over when it began to heat pretty well, then cart out and plow in; at other times I have moved it direct from its solid state in the pen to the land, and spread and plowed in. Neither way is entirely satisfactory. Inquirer.

Holderness, N. H., March 25, 1867.

AN EXCELLENT SOAP.

I have used it for more than fifteen years, and know its good qualities for those who have hard, rough, and dirty hands.

I take 4 pounds castile soap, 4 pounds best yellow soap, cut in thin slices and put it into a kettle with a little soft water, over a moderate fire. When it is melted, I put in the oil of three beef's galls, and one pint of glycerine oil; stir well together, then pour it into pans about an inch deep. I then stir in pumice stone, pounded fine, until it is as thick as dough. When nearly cool cut it into squares. For more delicate hands the pumice stone may be sifted. Age improves it.

F. E. Bigelow.

Concord, Mass., March 24, 1867.

INVERTED WOMB IN SHEEP.

I wish to inquire through the Farmer, what the cause is, and what will cure sheep that "cast their weathers?" I had one last winter, and two this winter; one is so bad I have to keep her sewed up. I have washed them in alum water, and milk and water. Will some one give me some information what to do for them? F. H. Hoit.

Newark, Vt., March, 1867.

Remarks.—You have probably looked at Randall's book. If the alum water does not succeed, why not try Youatt's—and Randall recommends it, too—plan of "tying a strong ligature round the protruded parts, as near to the mouth of the vagina as possible. The uterus will slough off in the course of two or three days. There will be no bleeding, or the slightest inconvenience, and the ewe will become as healthy and as fat as any of the flock." Of course, she will not breed any more.

ENCOURAGING.

With pleasure have I perused your valuable paper and pamphlet. It brings me back to years that are past, when I used to find so much pleasure and satisfaction in looking over the old New England Farmer, printed in your city by Joel Nourse, and edited by Mr. Brown, both of whom I see are interested in the present paper. I have a large pile of the old ones, that have been looked over very many times by me and mine, with great pleasure, wishing there might be another one of the same kind started, and it is here before me in the same old form. I hope it may give as good satisfaction to all who read it as did the former one. Wm. H. Black.

Ellsworth, Me., 1867.

Remarks.—Thanks, Mr. B., for your encouraging appreciation of our labors. Nothing that is reasonable shall be left undone by us to make the Farmer a valuable paper to the cultivators of the soil, and to mechanics also.

For the New England Farmer.

SOILING MILCH COWS.

MR. A. W. CHEEVER.—Sir,—I saw by the NEW ENGLAND FARMER, a few months since, that you are in the habit of soiling your stock for the purposes of butter-making. Will you please give me your plan of soiling, whether you keep your cows up all the time, or let them run in the pasture a part of the time in summer for exercise; also how much grain you feed, and what kind you consider best for butter.

I am on a place that has poor pastures, and I wish to bring the farm up in the best manner. I cannot pasture more than a quarter of the number of cows I might winter. I am not situated so as to sell milk, therefore must make butter.

Does the soiling system pay, in your opinion?

If you answer the above questions, and give me such other information as you think best, you will greatly oblige a brother farmer. Respectfully yours, R. P.

Holliston, Mass., March 13, 1867.

MR. R. P.:—Dear Sir,—Yours of the 13th is at hand, and I take the first opportunity to answer as well as I may some of your questions. According to the dictionary, *soiling* is the act or practice of feeding cattle or horses with fresh grass or green food cut daily for them, instead of pasturing them. Strict soiling would hardly allow the use of grain of any kind, much less any dry or cured fodder, neither any feeding in the pastures.

I have never practiced or advocated that kind of soiling for the purposes of butter-making. If the object were to obtain the largest amount of milk for sale, without much regard to quality, it might be, and probably in many sections of the country it is, the best mode of keeping cows in summer.

During the last summer, I had occasion to visit the milk farms of Mr. T. P. Denny and Mr. Humphreys, of Brookline, who each keep from twenty-five to thirty cows, and who sell all their milk. They feed green food principally through the summer season in preference to pasturing. Several of their best cows were at that time giving twenty quarts each per day —a quantity much above what could be obtained on dry feed. As to pasturing milk cows, these gentlemen say it is well enough when the pastures are in their best condition and are near the buildings. Distant pastures require of the cows too much travel, and no pasture is in its best condition but a very few weeks in the year.

The milk farmers near the cities seem to be driven to the soiling system, from necessity, and they obtain uniformly larger quantities of milk than they could by any other method. As I make butter from my milk, I care as much for quality as quantity; and in my own practice, when I use the term *soiling*, I mean by it stall feeding in opposition to pasturing. And I believe the time is soon coming when this system of feeding milch cows for the dairy, must be generally adopted all through the Eastern part of our State, and around the cities generally throughout New England.

The style of farming has changed very much since our grandfathers were on the stage. They cut off the forests, burned the wood, except enough for fences, sowed rye and grass seed, and then pastured. The land being new and well covered with ashes from the burned timber and wood, produced for many years large crops of good pasture grass. At that time land was cheap; not worth much more than the cost of clearing; and the farmers in estimating the cost of a pound of butter or a quart of milk, hardly took into the account anything for pasture feed. Only twenty-five years ago, I saw a promising heifer, two and a half years old, sold for $10.50, from a drove being peddled out on the way from Brighton to Rhode Island. Pasturing must have been of little account where that heifer was raised. But that time has gone by, not soon to return. The lands of New England are exhausted of their original fertility, and a different system of farm management is called for. Some of my neighbors are still anxious about their old worn out pastures. They mow the bushes every fall, and occasionally plow, manure lightly, crop heavily; first with potatoes, then oats, next hay a few years, and then pasture thirty or forty years. At the end of the rotation the land is considerably poorer than at the beginning.

The one great trouble with the pasturing system for us at the present time is, that we cannot make and save enough manure from the stock our farms will keep to enable us to retain the present condition of the land, but are constantly making it poorer. I believe it is this system that has caused the gradual running out of the farming lands of the country, for the past two hundred years. And I should think when farms are every week advertised in the papers to be sold for what the buildings would cost, it was an indication that we had nearly reached the bottom.

I gave up the idea of depending on pastures for milch cows nearly twenty years ago, and have not turned a furrow or spread a shovelful of manure on any pasture, with one exception, since that time. My general practice has been to commence near the buildings, and, as far as I go, to remove all the fences and rocks, as fast as seems reasonable; draining where necessary, manuring very heavily the best grass land, sowing thickly with grass seed alone, and cutting all the grass possible on the ground gone over. The outside lots were mowed as long as they produced sufficient to pay for cutting, then turned out to pasture. Pines, birches, and other kinds of forest trees, were allowed to grow where I did not intend to plow. Thus, when the land will no longer produce grass, there will be growing a crop of wood.

You say you cannot pasture more than a quarter of the stock you can winter. Suppose you can winter ten head and wish to keep that number. If you will immediately turn out

some of the poorest of your mowing, perhaps you will be able to keep ten with what pasture you will then have, by feeding hay in the stall night and morning as needed, till the first of July. Then feed new hay or grass cut every day, till the first of August, letting the cows get their dinner in the pasture. By this time you will have corn fodder ready to cut, if you will plant it early enough this spring. If planted at suitable times and in sufficient quantity, you ought to have that as a principal feed for two months or longer. At this time you might perhaps keep the cows entirely out of the pasture, saving all the manure they will make. If, by the time the frost has ended the green fodder season, the pastures have thrown up a last bite for the cows, they may be turned in again for a short time for their dinner, feeding plenty of good hay night and morning. If no grass is in the pasture at this time, you may as well call the soiling season ended, unless you can find in the mowing some spots from which you can cut rowen.

If you adopt this plan, you will need a cellar under the stable, into which the manure can be dropped. Shovelling fresh manure in summer out of a stable window, from cows fed on green food, is not a pleasant kind of employment. You ought also to provide yourself in some way with dry muck, loam, or sand enough to absorb all the liquid part of the manure. The opportunity you will have of making from two to four times the manure you now do, you will find to be one of the principal advantages of the soiling system.

Without plenty of manure very little can be accomplished in this part of the country, at the present time, but with it almost anything can be done that may be desired in the way of farming.

You ask how much and what kind of grain is best for butter cows. This is yet an open question. Some good farmers are now contending that *early cut* English hay is the best feed, next to grass, a cow can have. But with such hay as most farmers use, and especially when feeding green food, like corn fodder, I believe some grain is necessary in order to keep the cows in good flesh while giving a large amount of milk. I usually feed two quarts of Indian meal and from four to six quarts of wheat shorts, per day, to each cow, varying the quantity somewhat according to the age and condition of the animal. I believe a fleshy cow may be allowed all the shorts she will eat without being injured. A lean cow must be brought to a full grain diet very gradually. One thing I have noticed about feeding shorts is, that cows will never touch a bone, or ever be caught gnawing boards or old leather, if they have long been fed with plenty of shorts.

You ought to obtain Mr. Quincy's little work on soiling, and you would do well to spend a day or more in visiting farms where the system has been adopted. I have never yet known a man to adopt the soiling system and afterwards go back to pasturing.

To your last question, "Does the soiling system pay?" I answer, that where grass does not grow spontaneously all through the summer season, in sufficient quantities for the full needs of the stock, this system of soiling, or stall feeding in a greater or less degree, is the only resort, and if it won't pay, it must be because the whole business of dairying won't pay. If it will pay to keep stock at all, it will pay better to keep it well. Believe me, Sir, very truly yours, A. W. CHEEVER.

Sheldonville, Mass., March 20, 1867.

For the New England Farmer.

GRAPES.

MESSRS. EDITORS:—The article on grapes by S. S. Chamberlin, and your remarks upon his vines, their fruit, and the home of the owner, *and its location*, are very interesting and suggestive.

That part of Mr. C.'s article in which he speaks of wine—its value and cost, and its use to the poor and the sick, I must confess myself unable to appreciate, as I have never used a quart of wine in my life; but his remarks on growing grapes for their fruit are certainly timely and excellent, and will, I hope, be very useful. He certainly understands growing grapes; and though many will call his statement an exaggeration, I accept it as a sober truth; because I can name others who have come so near to him in the weight of their grapes, per vine, on an average, of the same variety, that I have no reason for being surprised. The secret of his success lies in the location and aspect, and in the care he takes of his vines. Under the same conditions, many other varieties now generally discarded would well repay the owner. But, as Mr. Chamberlin says, so I say, I wish it to be understood I am not referring to '*vineyard modes*.'

In my articles on "Grape Fever," I did have reference chiefly to "vineyard modes," yet, as then, I now say, "no doubt all these varieties are cultivated with much satisfaction by persons of taste and experience, and in many cases the fruit is worth double the cost of raising it." It is, however, none the less true that those varieties, including the Isabella, are not safe vines for open or *field culture*;—they must be well sheltered and the aspect good, and the location high and free from early frost. On this point Mr. Chamberlin observes, "I am satisfied that these vines would often fail to ripen their fruit by the frost striking them, if they had been out in my fields." But under the condition he names, "the frost does not have a chance to injure them so early by three or four weeks." The time, he says, "they usually ripen, is about the middle of September."

Mr. Chamberlin has an unusually favorable location, or his Isabella grapes would not

ripen before the last of September. Here, nineteen miles south-west of Boston, and about one hundred feet higher than that place, Isabella grapes are not fit to gather for market before the time I have mentioned. Within a few rods of where I am writing this, a vine of that variety trained on the south of a building, and having, by estimate, two hundred and fifty pounds of fruit on it, was struck with frost to the destruction of its fruit three weeks after my Hartford Prolific, and two weeks after my Concord grapes had been completely ripened and sold in Boston; and these were grown in an open garden on a trellis. I wish friend Chamberlin would try one of each of the varieties I have named, to see how soon in the season they would ripen at his place; if he will, as I am coming to Manchester in April, I shall be happy to make him a present of some vines. I think they will ripen their fruit in his fields as soon as his Isabellas will ripen theirs on the barn.

I do hope he will accept my small gift as a token of my confidence in his ability to care for the vines properly; and also, because I am satisfied that he would then recommend Hartford Prolific and Concord to his neighbors who may not have such a good place as his to raise Isabella grapes.

Will not some others give their experience, and thus encourage the growth of a fruit, which I and friend Chamberlin have found to be so profitable. JOHN FLEMING.

Sherborn, Mass., March, 1867.

VARIETIES OF STRAWBERRIES.

As chairman of the Massachusetts Horticultural Society's Committee on Fruits, J. F. C. Hyde, Esq., gives the following brief review of the present estimation in which the various kinds of strawberries are held by the practical cultivators of this fruit in the vicinity of Boston:—

"Hovey's Seedling is still the best variety of its season. Jenny Lind is a favorite early sort. La Constante has been gaining friends, though we fear that for ordinary field culture it will not succeed. Brighton Pine still holds its place, especially among market gardeners. The Buffalo Seedling and Russell's Prolific are not valuable varieties. The French Seedling is soft and poor, and of no value as a market fruit. Some fine specimens of the Agriculturist were shown by E. A. Brackett, of Winchester, who has been quite successful with this variety. In point of quality, it is not up to our well known varieties, but may, like the Wilson, to which it is superior, be grown for market. It is a good grower and bearer. The Monitor is a soft and worthless variety. The Brooklyn Scarlet is acid, small or medium size, and of poor quality."

From Macmillan's Magazine.

SEASONS.

BY CHRISTINA G. ROSSETTI.

O the cheerful budding-time!
When thorn-hedges turn to green,
When new leaves of elm and lime
Cleave and shed their winter screen;
Tender lambs are born and "bar,"
North wind finds no snow to bring,
Vigorous Nature laughs "Ha, ha,"
In the miracle of spring.

O the gorgeous Blossoms-days!
When broad flag-flowers drink and blow,
In and out in summer blaze
Dragon-flies flash to and fro;
Ashen branches hang out keys,
Oaks put forth the rosy shoot,
Wandering herds wax sleek at ease,
Lovely blossoms end in fruit.

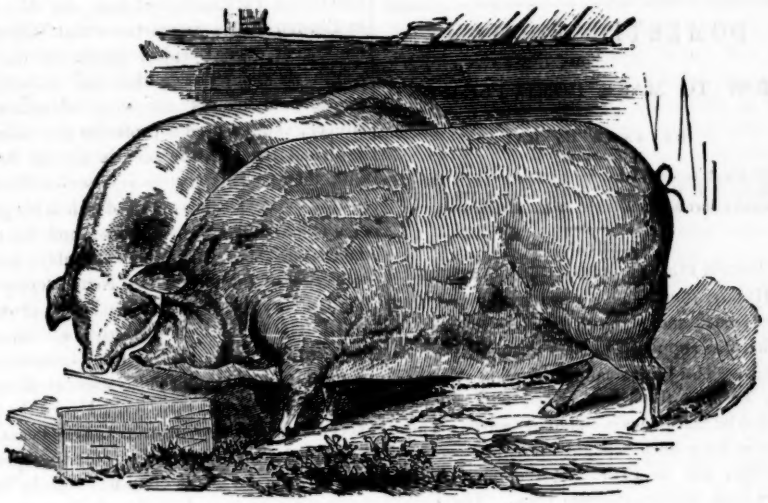
O the shouting Harvest-weeks!
Mother earth grown fat with sheaves
Thrifty gleaner finds who seeks;
Russet-golden pomp of leaves
Crowns the woods, to fall at length;
Bracing winds are felt to stir,
Ocean gathers up her strength,
Beasts renew their dwindled fur.

O the starving Winter-lapse!
Ice-bound, hunger-pinched and dim;
Dormant roots recall their saps,
Empty nests show black and grim,
Short-lived sunshine gives no heat,
Undue buds are nipped by frost,
Snow sets forth a winding-sheet,
And all hope of life seems lost.

WOOL.—The manufacture of knit woolen goods has been greatly stimulated in this country by the high cost of importation since the war, and it is now estimated that 400 sets of machinery and 40,000 hands are employed in this branch of industry in the United States, producing goods to the value of about $20-000,000 per year. The New England and Middle States nearly monopolize this business, New York taking the lead with the extensive mills at Cohoes.

PURE ITALIAN BEES are not plenty in this country. None are absolutely pure whose workers have *less than three yellow bands*. Queens and drones from mothers of undoubted purity, sport in color and are not relied on as a test of purity. But queens bred from pure mothers must produce workers with three yellow bands, to be pure. This is the test of purity now adopted by the best bee-keepers, not only of this country, but in Europe.—*Rural New Yorker*.

FRUIT PROSPECTS.—A correspondent of a New Jersey paper writes that he has made a wide circuit among the peach orchards, and finds the prospect good in most of them, though some are much injured. He finds strawberries raspberries and blackberries in first rate condition, and promising well for the season. Apples and pears are also good.



CHESTER WHITE SWINE.

These swine, known also as Chester County Whites, Chester Whites, &c., derive their name from Chester County, Penn., where they are said to have originated, some forty years ago, by a cross between the best native stock of that section and a boar imported from Bedfordshire, England, by a Capt. Jeffries. Sanford Howard describes the old stock as follows: Head large; the nose or snout thick, but not long for the size of the animal; the ears large, thick and flapping; the body rather long, and tolerably round; the back generally hollowing, frequently with a considerable depression immediately behind the shoulders; the legs generally large in proportion to the size of the body, and in fat animals frequently giving way so much as to bring the dew-claws fully to the ground; the skin rather thick, and covered with long, wavy bristles. He then remarks that many of the hogs now called Chesters, or Chester Whites, have upright and somewhat thin ears, less bristles, thinner skin, and less coarseness of bone than the old stock, plainly indicating a cross with some finer race.

This breed appears to be attracting much attention in many parts of the United States at the present time, and the above cut, from a photograph of a pair, will give a good idea of their outside show.

AGRICULTURAL ITEMS.

—The price of flour was quoted in California, Feb. 21, at $4.75a$6.25 per bbl.; hay $8a$14 per ton.

—Edwin Hammond, of Middlebury, Vt., recently sold six ewes to go to the West for $600 apiece.

—The California *Farmer* says that nursery men are doing a good business in that State, as there is a general desire to improve everywhere.

—Mr. James O. Sheldon, of Geneva, N. Y., lately purchased of Samuel Thorn, forty short horn cattle of the Duchess and Oxford families at an average of over $1000 per animal.

—Maple orchards are of great value to farmers. More attention should be paid to growing young maples by nursery culture or otherwise. They readily start from the seed.

—Mr. Sullivan Fisk, of Compton, C. E., last season raised 525 bushels Davis Seedling potatoes from one acre of ground. Thirty loads of manure, were spread on oat stubble in the fall, and plowed in. In the spring, the land was again plowed, harrowed, and furrowed about three inches deep, three and a half feet apart. Large potatoes were cut into three pieces each, and *one* piece dropped in a hill, the hills fifteen inches apart. They were hoed twice in a thorough manner.

Ladies' Department.

DOMESTIC ECONOMY;

OR

HOW TO MAKE HOME PLEASANT.

BY ANNE G. HALE.

[Entered according to Act of Congress, in the year 1856, by R. P. Eaton & Co., in the Clerk's Office of the District Court for the District of Massachusetts.]

CHAPTER IV.

HOUSE PLANTS, AND THEIR CULTURE.

HELIOTROPE.—This word is derived from the Greek, and signifies *turning to the sun*, which was supposed to be a peculiarity of the genus. The Latins called the plant Verrucaria, because the juice, mixed with salt, was said to be efficacious in removing warts. Three species have been brought from the south of Europe, one in 1640; but the most familiar have been introduced from Peru. The heliotrope is prized more for its fragrance than its beauty, though Voltaire's, which has deep, purple flowers, is certainly handsome. It is increased by cuttings, and should receive treatment similar to that given the fuchsia.

HOYA, or Wax-plant, took its generic name from Thomas Hoy, a celebrated English gardener. This genus is composed of climbing plants, bearing both leaves and flowers of a waxen appearance. The leaves are deep green; the flowers are either blush, or cream colored, and are very fragrant; they hang in bunches and secrete a honey-like juice. The best method of propagating this plant is by layers, though cuttings are sometimes started in the pot of the parent plant. The hoya should have a soil of peat, sand, and loam, in a pot drained with cinders. It needs little water, but much heat; and should never be placed out of doors. If watered occasionally with liquid manure the soil will require no renewal for several years. Do not take off the flower-stalks, they bloom anew, year after year. Set the pot on a high shelf, near a window; and train it so that it receives the warm air at the top of the room. Let it droop over pictures, and about the window—it will be a very elegant decoration. The hoya is a native of the hottest parts of Asia.

HYACINTH.—The old heathen poets say that Zephyrus, prompted by jealousy, killed Hyacinthus, the friend of Apollo; and from the blood of the youth sprang this flower, the petals of which were inscribed with his initial, which is also the Greek exclamation of woe, *Ai, Ai*. It is in allusion to this circumstance that Milton, in his lament over Lycidas, speaks of the hyacinth as the "flower that sad embroidery wears." Hyacinths are very abundant in Greece, and are used in profusion at weddings; as also at funerals, the bier is always strewn with them. This custom is observed likewise in Italy. Bryant has referred to it in his poem of a child's funeral at Sorrento; and he calls the flowers "*sad* hyacinths" probably, in recollection of the old myth. Near Aleppo and Bagdad very fine hyacinths are found growing wild. The Dutch have paid great attention to their culture, almost from time immemorial. In 1720 they had under cultivation at Harlem over two thousand varieties. Hyacinths are exceedingly fragrant, as well as very beautiful both in color and form. Their curling petals have furnished a simile often met with in literature—"hyacinthine locks"—which refers not to the purplish black color of some hair, as has been erroneously stated, but to a tendency to turn up, or curl at the end, which is more noticeable in the petals of the wild hyacinth than in those of the cultivated flower.

The hyacinth is raised from its bulbs, which increase themselves more or less every year. When cultivated in the house, the bulbs are generally grown in water, but it is not so good a way as to plant them in soil. Late in October fill small pots, one for each bulb, if you choose, or, a larger one to accommodate a number. First place a layer of broken bricks, then one of small pieces of charcoal; then loam, river-sand (washed), and decayed leaves, equal parts, each; and a little charcoal dust. Let the soil rest lightly in the pot, and in the centre press the bulb till it is about half covered. Tighten the soil a little, by pressing it lightly around the bulb. Set the pot in a dark place, where it will be moderately warm. If the situation be damp, it will need very little water. When the bulb is rooted bring it to the light,—set it on a mantel-piece or in a window. The shoot will look white at first, but it will soon become green, and grow rapidly. Now water it very freely every day, adding a few drops of ammonia to the water once in ten days. When off-sets appear, press them out with the finger, or a smooth, thin stick.

If you wish to grow hyacinths in water,

choose firm, heavy, medium-sized bulbs, and keep them in damp moss a few weeks. Get the darkest colored glasses; fill them with rain water to which a little common salt has been put; not entirely full—the bulb placed in the neck of the glass must not touch the water. Keep them in a warm, dark place till the glass is half full of roots. Change the water (it must be always warm) once in a fortnight; and keep it always of the same height by filling in a little as it evaporates. When the water is changed always use rain water, salted slightly, and add a few drops of ammonia. If the roots get slimy and green, wash them carefully in warm water. The bulbs after blooming in water are generally so exhausted as to be valueless. But those kept in soil may be transferred to the garden in the spring, and may live several years; or they may be dried, and, wrapped in paper, kept in a cool, dry place until the autumn, and then started again for winter flowers. A very pretty way of growing the hyacinth is to place it with the bulbs of snow-drops and crocuses in a deep dish. Cover the bottom of the dish with pounded charcoal—not very fine—an inch deep. On this have a layer of damp silver sand. Arrange the bulbs at equal distances upon the sand, and keep the dish in a dark room for three weeks. Then, pour a little water just inside the edge, all around the dish, and if the bulbs are started up from the sand by the new roots, pour dry sand over them till they are covered. When the leaves appear, bring the dish to the light; and as soon as the flower-spikes peep up, take them to the window, or flower-stand; water them now, daily, with warm rain water slightly salted.

Hydrangea.—The word signifies water-vessel, and is of Greek derivation. It is a marsh plant, and requires a great deal of water,—ten or twelve gallons, daily, in the summer, is often imbibed by a single plant, if of large size. It is a native of the Carolinas and Florida; also of Japan and China. It thrives best in the shade; and, like the agapanthus, is usually kept as an ornament for the verandah in summer. It is propagated by layers, in a soil of peat and loam. The natural color of the flower is pink; but if blue flowers are wanted, powdered alum must be mixed with the soil, one ounce to a quart of soil. Iron filings have the same effect.

The Ivy, whose botanical name is Hedera—the Celtic for "a cord"—is what is called a rooting climber, because its stems climb up and wind themselves around anything that presents a rough surface for their roots to take hold of. *H. helix*, commonly called English ivy, is an evergreen plant, growing plentifully in the woods of Great Britain; and hiding with its foliage the gnarled old oaks and sycamores; or hanging its long garlands of verdure in picturesque beauty about the walls of dilapidated churches, and around the crumbling ruins of ancient castles. But with us it needs protection from the cold of winter; and, if reared out of doors, must then be covered with mats. It is, however, one of the best plants for parlor culture, and ought to be in every house. It needs a light, rich soil of peat and loam, drained with pot-sherds; and regular and plentiful watering must be given it. It is very pretty as a hanging plant in the upper part of a window, or seated upon a shelf or bracket and trained about the walls. Cuttings root easily in water, and long stems of ivy, cut from plants cultivated out of doors, may be kept in vases of water all winter upon the mantel-piece, and then set in the ground in the spring to make large new plants. There is another species, called the German ivy, having more succulent leaves, which grows more rapidly. This goes also by the name of Irish ivy; but many do not consider it as properly belonging to the genus. It should have the same treatment as *H. helix*. There is yet another plant, which is very pretty for hanging pots,—the Roman, or Coliseum ivy,—called sometimes, mother-of-thousands. It throws out slender, purplish stems having small green leaves with purple lining; and it bears tiny, lilac-colored flowers, shaped like the blossom of the snap-dragon. This grows in great profusion in the south of Europe, in the cracks and crevices of old buildings,—where there seems scarcely soil enough to give it foot-hold; the roof of the grand cathedral at Milan is in some portions thickly overgrown with it. This does well in sandy loam, but will not bear great watering. Among the ancients the ivy was held in high esteem. They dedicated it to Bacchus, and he is represented crowned with it to prevent intoxication.

Lantana.—This is the ancient name of the Viburnum, which the plant resembles in foli-

age. It is a native of the West Indies—brought thence in 1692. *L. aculeata* is the most common species. The blossom is similar to that of the verbena; and changes in color, from yellow to orange and red. It requires the same soil and treatment as the calceolaria.

LEMON.—The lemon belongs to the genus *Citrus*, which includes oranges, lemons, limes, shaddocks, citrons, &c. It is an ancient genus, the species of which are characterized by their handsome evergreen leaves, odoriferous flowers, and fragrant and delicious fruit. The golden apples of the Hesperides, and the forbidden fruit of the garden of Eden, are supposed to refer to this family; though we have no authentic record of any species of *Citrus* having been known, and certainly none were cultivated, by the Romans. The plants are natives of Asia. The citron, which differs little from the lemon, was carried from Persia to Europe—cultivated in Italy, by Palladius, in the second century; and, about a thousand years later, the orange was also introduced to Italy, from China and India. Orange-trees were growing in England in 1595; "carried thither," says Gibbon, "by a knight of the noble family of Carew." It has been raised by Sir Francis Carew from seeds brought by Sir Walter Raleigh; but, as such trees could not readily have borne fruit, it is more likely that Gibbon's account is correct. They were kept in open ground, having a moveable cover for winter. They were killed in the great frost of 1739–40.

At the beginning of the eighteenth century, when there were few exotics, orange trees became fashionable for conservatories. And, although other plants, of almost endless variety, have been in competition with them since, and some of them, in the mere matter of fashion, have occasionally gained the precedence, no vegetable production has yet been found capable of attaining such high perfection in foliage, flower and fruit combined, as the orange. Lemon or orange trees may be raised from seeds, and in six or eight—possibly in three or four—years may bloom. But they are more sure to bloom, and will bloom sooner, if budded, or grafted. A seedling lemon or citron makes as good a stock for budding with orange as the orange stalk itself. Seeds should be planted n pots, drained with cinders. Soil, one-third of sand; and the remainder light loam that has not been cultivated, peat, leaf-mould, and old manure, in equal parts. Mix all well together that the compost may be uniform. As soon as the first shoot appears, water the soil, and give the pot air, heat, and light: but keep it from the sun, if it shines powerfully. After the first leaves have opened, water with liquid manure once a month; and wash the leaves and stems frequently. The foliage will be handsomer if the pot is kept in the shade.

LEMONS.—When seedlings are two years old, they should be budded from healthful and fruitful trees. They must then be kept in a cool—not cold—airy place, and be watered charily. When the bud shows growth, give more warmth, and more water. Young orange and lemon trees are very desirable for the flower-stand, even if they do not bloom, because their beautiful evergreen foliage affords a fine contrast to other plants. But if the blossoms and fruit are wanted, the best way is to buy a tree ready to bloom. These are generally imported. The Italians have for many years supplied both North and South America, as well as all Europe, with orange trees, of which they have extensive nurseries. The prettiest for house culture are the dwarf. The dwarf Mandarin bears fruit of exquisite flavor. The dwarf Otaheite is a more common kind; this bears a great abundance of fruit, but it is not so nice, neither are the flowers so fine, as those of the Mandarin. The shaddock bears very large, beautiful flowers. The blossoms of the lemon are smaller than those of the orange, and the under side of their petals is tinted with purple. The orange blooms in March; and the fruit shows its form in April, but does not begin to turn yellow until the following spring. It requires over a year to ripen oranges, and they are better for remaining longer on the tree; they can remain three years on the tree before being gathered—the orange never drops naturally. The lemon ripens irregularly, and falls off when ripe.

Once in six years, orange trees should be pruned, the shoots shortened to within an inch or two of the old wood. It will not blossom for two years after this, but it will throw out handsome, vigorous shoots, which at the end of that time will be covered with an abundance of flowers. Unless the tree appears sickly it will not need re-potting except at the time of prun-

ing. Then take it from the pot, trim off the small fibres and mouldy roots, and soak the ball of roots in warm water for ten or fifteen minutes—to detach the old soil. Place it in a pot, with drainage and soil as for seedlings, adding thereto a little charcoal dust. Keep it in the shade a month, and water it sparingly. Give it room then with other flowers, and water it more, as it grows. Wash it frequently, for it is apt to be troubled with insects. It needs light, but not much sun till the fruit is set. Everybody knows that orange blossoms are the most appropriate flowers for bridal decorations.

Lily of the Valley.—*Convallaria*, the botanical name of this beautiful flower, is of Latin derivation, and refers to the places where it grows. It cannot be the plant of the same name of which Solomon speaks, because it is a native of cold or moderately warm countries, and would never have bloomed in the fields of Palestine. Old English writers call it May lily. In the western part of Norway it grows in greater abundance than any other wild flower. A recent traveller says that it stood everywhere, scenting the air, in such profusion one could scarcely step without bruising its tender stalks and blossoms. Its fragrance when fresh is remarkable only for sweetness; but when the flowers are dried they are powerfully narcotic. A wine is made of the flowers in Germany. A beautiful and durable green color may be prepared from the leaves, with lime. An extract is made from the roots and flowers which has all the properties of aloes. The plant is very common in Great Britain, growing in the woods, from whence the London markets are supplied. It was brought to this country among our earliest exotics, and is found in almost every garden, filling the air in its vicinity with fragrance during the months of May and June. But it can be made to bloom in winter and is one of the sweetest as well as prettiest parlor plants we can have. The bulbs should be taken from the garden in November. Choose those having the thickest and bluntest buds—the sharp-pointed buds produce only leaves. Fill a pot—a box four inches wide and deep is better—with light, rich soil. In this set the bulbs slightly, just so as to cover all but the point of the bud. Lay moss over them; and then cover all with another box, so that they may be in complete darkness,—for this is essential to success. Keep the box in a warm place, but dark, until the flowers begin to show. Then remove the covering box, and gradually take the box of plants to the light. The leaves will look white, but they will become green very rapidly after the admission of sunlight and air. Occasionally give them warm water—they must never be dry. They will be in bloom in a month from the time of planting the bulbs. Another way of treating them is to wrap each bulb in moss, and then lay them all closely together, the points upward, in a box; and sprinkle soil in among and upon them, just leaving the tops bare, and covering from the light as before, until they are in bloom. Then take them out carefully, and arrange them, the moss still about them, in baskets or glass dishes or vases. The moss will need moistening occasionally; but they will remain in bloom a good while with very little moisture.

Lobelia.—This genus takes its name from an old French botanist. Most of the species are natives of this country. Some are found at the Cape of Good Hope, and a few in the south of Europe. *L. Cardinalis*, (called by Cutler in his account of the indigenous plants of North America, published in 1785, American Pride) is one of the most beautiful of the family. This species attracted the attention of English florists early in the seventeenth century, and is now cultivated among their choice plants. Transplant in the fall to rich loam. Keep it shaded a month. Cut it nearly down to the root, at the time of transplanting. Water it with weak liquid manure, and as soon as it shoots out well take it to the flower-stand; its gorgeous scarlet flower will be a valuable addition to any collection. *L. Gracilis*, a trailing species, bears a pretty blue flower, which makes an elegant appearance in a hanging-pot.

Mahernia; more properly, Hermannia.—Named in honor of Hermann, a Dutch botanist. It is a delicate little shrub, and needs the support of a frame. Nothing can be prettier than a thriving specimen of *M. Odorata* in full bloom; the frame being covered with its fine, neat foliage, thickly hung with the small bell-like flowers that dispense a most delicious fragrance. It is easily raised from cuttings started in damp sand under a glass; and then transplanted to pots, drained with crocks, hav-

ing a soil of peat, sand and loam. Keep it moist but not too wet. Give liquid manure occasionally.

MIGNONETTE.—This is a French name, meaning little darling; but the French themselves call the plant by its botanical name, *Reseda*. It is a native of Egypt and Barbary. In France, as well as in England, it is cultivated in boxes for the window seats and balconies; but with us it is usually confined to the garden. It is, however, well worthy of house-culture, and may be added to winter flowers by setting apart a few plants from the garden, cutting off their flower buds when they appear, and transplanting them in the autumn to pots filled with sandy loam; still it is better to plant the seed in a pot especially for winter. This should be done in September,—just scatter the seed on the top of the loam, and then sift more of the soil upon it,—and keep it in a shady place till it is an inch high; then give it sun and more water. In October bring it to the kitchen, where it will be warm night and day. Let it have the full sunshine, and when flower buds appear carry it to the flower-stand.

One plant may be made to grow into a tall shrub, by taking off the buds as fast as they appear through the first season, and then trimming away the branches so as to form it like a tree. It should be taken in with house-plants, and kept warm and well-watered, through the winter. The second summer it should receive the same treatment again, but by the third summer it will have acquired woody back, and in all respects be a complete shrub. Then it may be allowed to bloom, and for many years it will bear, every summer, an abundance of very fragrant flowers. No doubt by skilful management the plant might be made to do the same for winter.

MIMULUS.—The name is derived from the Greek, and signifies an ape. The flower-seeds resemble a monkey's face, hence the plant is sometimes called monkey-flower. It is a showy plant, of easy culture, brought from South America—some species from Mexico. One, *M. luteus*, is a culinary plant in Peru. It is raised from cuttings, in a soil of peat and loam, which should be watered profusely—enough to keep the saucer full. But the pot should be deeply drained with pebbles, and the water should be emptied from the saucer every day

MONEY PLANT.—This plant belongs to the Loose-strife family; and they were so named by the ancients because they erroneously supposed that their flowers quieted restive oxen by being placed upon the yoke. This species is of trailing habit and looks pretty at a window. Fill a small pot—a conch-shell is more tasteful—with rich garden soil and set the slips securely. Keep it in the shade till they begin to grow, giving it plenty of water. Then hang it in the sunshine and it will soon be studded with bright yellow blossoms; but it will not bloom away from the sun, and it will die unless kept constantly damp. It is a native of England—growing abundantly in the meadows.

The MYRTLE derives its name from a Greek word meaning perfume. It is a native of Africa and Asia, as also of southern Europe. "The myrtle groves of the south," have furnished the poets with many a theme. The ancients paid great attention to odorous shrubs, hence the myrtle became an object of high regard among them, and in the rich climate of Greece, which strengthens the perfume of plants it grew to great perfection. Virgil tell us that myrtle-wood was used for making implements of war on account of its hardness; and the Portuguese now consider it the hardest wood that grows. In the estimation of the Arabs it stands very high also. They say that Adam fell down from Paradise with three things: the myrtle—which is the chief of sweet-scented things in the world; an ear of wheat—which is the chief of all kinds of food in the world; and pressed dates—which are the chief of the fruits of the world.

The ancient Romans dedicated the myrtle to Venus, the goddess of beauty; they steeped its leaves in their wine to improve its flavor, and to add to its invigorating properties; they used the berries in medicine; and they wove garlands of it for the head of their chief magistrates, and for the brows of the dead. This last practice was adopted by the early Christians; and though it was finally prohibited, on account of its heathen origin, the myrtle, as a religious decoration has never been entirely set aside. In the Madeira Islands, where myrtle trees are very abundant, the churches are adorned at festivals with its leaves and branches; and they are also borne in processions in Catholic countries. In Australia the

myrtle grows to a great size; having an enormous trunk, and standing one hundred feet high before it expands its canopy of foliage.

M. communis—the common myrtle—is the species usually cultivated in this country. It is the myrtle of the Scriptures, and has several varieties. The broad-leaved is the Jew's myrtle. They still regard it with veneration, and are anxious to obtain it for the celebration of their Feast of Tabernacles. In Europe it is frequently cultivated expressly for that purpose; the most devoted obeying literally the command of the prophet Nehemiah to "Fetch olive, and pine and myrtle." The leaves of this variety grow in threes. There is also another broad-leaved variety; also a narrow-leaved, the box-leaved, and the Chinese. This last bears purple flowers; the others white. The myrtle is propagated by cuttings stuck in sand under a glass. Cut the slip at a joint; and cover it with sand half-way to the next joint. When it is rooted set in a three-inch pot drained with crocks. Soil—one-half garden loam; and the remainder sand and leaf mould in equal proportions. It needs air and regular watering to flourish well, also frequent washing. In the winter give it a sunny situation; but in summer keep it in the shade and water it sparingly. It need not be re-potted till the second year. Do not change the pot too often as it stops its growth—only be sure that it is not pot-bound. If not too frequently disturbed it soon becomes a large plant, one of the neatest and handsomest for the parlor.

For the New England Farmer.

CULTURE OF PLANTS.

Mr. EDITOR:—I merely wish to say how interested I am in those articles entitled "How to make Home Happy."

Not having, like the woman who does *not* live in her shoe, a cluster of olive branches to superintend and direct in the way they should go, I am more especially devoted to my house plants, of which I have a choice collection.

I live in a farm house, and my kitchen, like many old farm house kitchens, is dark and homely, but my two south windows filled with plants present a cheerful, pleasant appearance with their luxuriant green leaves, and bright beautiful flowers, even in the middle of winter.

I have often wished my husband would take a more practical view of the valuable hints to be found in the FARMER, on the different items of farming; but now I have an opportunity to try some of those rules myself. I have a number of the varieties of plants mentioned by Miss Hale, and I intend to apply the rules therein laid down to their cultivation. If they do not thrive as well under that system, you may be sure I shall find fault, for my flowers seem like pet companions.

Allow me to add that I hope we shall have a few hints on dahlia raising. They are great favorites of mine, and I would like to know if there is a way to obtain a variety of those beautiful flowers except from the seed, which is a slow way of getting them.

A SUBSCRIBER.

Concord, Vt., Feb. 22, 1867.

REMARKS.—Thank you for the compliments expressed and implied. We think you will not regret following the directions given, but as you already appear to have good success with your plants, and seem to be a little doubtful whether the new plan is as good as your own, adopt the new by degrees. Try it, for instance, on the additions you make, from time to time, to your stock. You will find, before the chapters on Plant Culture are completed, many varieties named which will be new to you, probably, and which would doubtless thrive well with you, and amply repay you for your trouble.

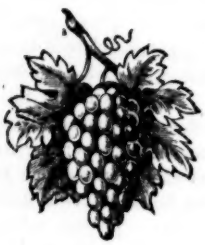
Such a window as yours should have some hyacinths in it, next winter. There can hardly be anything easier to grow than they have proved with us, and the common varieties are not expensive. For garden culture, to be planted in the fall, good bulbs will cost from $1.50 to $3.00 per dozen. For pot or glass culture, the price is rather higher. Single bulbs will cost you from 25 cts., to $3.00 each, according to rarity and beauty. Named varieties can be had for $4.00 a dozen, or for $1.75 a dozen without names. The blossom is fine and very fragrant. We have just put aside one lot which have done blossoming, and have another lot coming forward to take their place.

The dahlia was extremely popular once, but of late years other flowers have taken its place, and it is not anything like so common as ten, or even five years ago. You can best procure a variety at the florists, and we recom-

mend you to Washburn & Co., J. Breck, or Hovey & Co., of this city, who will charge you from $1.50 to $6.00 a dozen for strong, thrifty plants that will give you an abundance of blossoms, if properly cared for. The expense of getting the plants, properly packed, would not be very great if you are near the railroad, or have an express running to your town.

With regard to the culture of the dahlia, Rand says it thrives best in a rich, deep, pliable soil, which should be well manured with thoroughly decomposed manure, and well drained. Plants should be set the latter part of May, five feet apart, and tied to tall stakes. A correspondent of the *Germantown Telegraph* says:—

I plant the bulbs in hot beds, just as I would sweet potatoes; when the plants get up four or five inches, I cut them off down close to the tuber or bulb; these sprouts I cut up into little pieces, making the lower cut just below an eye. These cuttings I put out in sand, and they soon strike roots and grow. The tuber will send up other sprouts, which, when of sufficient size, are cut off and treated in the same manner. A large number of plants are thus made from a single tuber or root. By this method the finest flowers can be produced. If you plant the whole bulb, with one eye on it, the plant will grow very rapidly and strong, but it will all go to stalk and leaves, and the flowers will be indifferent. Most people plant out dahlias too early; the first of June is plenty early enough. The best flowers are those which are produced late in the season. The treatment of the plants, after they start, requires no special skill.

If you have not already tried the gladiolus, as a garden flower, you cannot do better than to add it to your collection. It is easy of culture, easily kept through the winter, and the common kinds increase quite rapidly. It is a thrifty, clean plant, and its long spikes of flowers are very handsome. The flowers will keep several days in water, and a spike thus treated, when just commencing to open, will continue blossoming till all the buds have opened. As with the hyacinth, you can get the bulbs quite cheap, or you can pay as high as $4.00 for a single one. Ordinary kinds will cost you from 10 cts. to 30 cts. each; very good ones 25 cts. to 75 cts. each; and mixed varieties, in which you will stand a good chance of very fine flowers, $2.00 to $2.50 a dozen, prepaid by mail.

But our remarks are encroaching upon our space. A quarter of a dollar to Washburn or Hovey, will secure you by return of mail a pamphlet giving full lists and prices of plants and seeds, with directions for culture. We hope you may have "good luck" with your plants, and that our response to your inquiry may prove satisfactory. ED.